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No. 234



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27 October 1982

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I. GENERAL INFORMATION

PREVENTION OF POLLUTION OF UNDERGROUND WATER STRESSED

Beijing SHUIWENDIZHI GONGCHENG DIZHI [HYDROGEOLOGY AND ENGINEERING GEOLOGY]
in Chinese No 4, 1982 p 29

[Article by Zhang Shaozeng [1728 4801 1073] of the Guangxi Hydrogeological and Engineering Geological Brigade: "The types of Pollution of Underground Water in the Guangxi Karst Region and Their Prevention"]

[Text] In the Guangxi karst region, the karst region's underground water has been directly or indirectly polluted to varying degrees because of improper treatment of the "three industrial wastes," sewage, and garbage, and because of the massive use of farm chemicals and chemical fertilizers. Guangxi now has over 10,000 large and small industrial and mining enterprises. They are mostly located on the two banks of rivers and in the karst region. Each day, they release over 4 million tons of industrial waste water and sewage. Sewage constitutes 23 percent, and it mostly drains into the rivers and farmland. Some of it directly drains into the karst caverns and pollutes underground water.

Results of environmental hydrological and geological surveys conducted in recent years show that there are the following four types of pollution of underground water in the Guangxi karst region:

1. Underground water is mainly polluted by organic and inorganic compounds, heavy metals, farm chemicals and chemical fertilizers. For example, in the areas of the Liuzhou City Chemical Plant, the Dongfeng Chemical Plant, the chemical industry zone in southern Guilin City, underground water is seriously polluted mainly by chemical substances.

Analysis of the survey data of pollution of underground water in the Guilin karst region (See Table 1) shows that chemical pollution of underground water has the following characteristics:

Table 1

Item of inspection	Year	Percentage detected (%)	Percentage surpassing allowable standard (%)
mercury	1979	28.4	84.8
manganese	1979	4.3	60.0
phenol	1978	18.2	60.0
sulphides	1979	72.2	100
lead	1975	8.5	33.3
arsenic	1979	78.4	0
fluorides	1979	31.9	0
cyanides	1976	6.1	0
chromium	1979	7.8	0
cadmium	1979	1.8	0

(1) Many types of harmful substances are detected. The content of some substances has surpassed the health standards, indicating that the underground water has been polluted by the "three industrial wastes." (2) The contents of amino nitrogen, nitrite nitrogen and nitrate nitrogen in the water are high, and some have surpassed our nation's standard for drinking water or reference criteria, and there is a trend toward a gradual increase over the years. This shows that underground water is also seriously polluted by pollutants from living and other organic substances. (3) The total hardness of water tends to rise gradually over the years. (4) In localized regions, the content of chlorine ions is high.

2. The Types of Biological Pollution

The waste water from some thermal power plants, steel mills and chemical plants generally has a relatively high temperature. Some of the waste water reaches over 30°C. When such waste water is drained underground, the underground water temperature can be raised 5°C to 6°C, causing the underground water to lose its function as a coolant.

4. Types of Radioactive Pollution

The sewage released by the isotope treatment ward of hospitals and the waste water from washing ores at some mines and waste water from certain national defense industries contain radioactive materials. They are released everywhere and they can directly or indirectly pollute underground water and cause damage.

This region is mainly polluted by chemicals. The distribution is wide, pollution is serious and the damage is greater.

Because the speed of flow of underground water in the karst region is slow, the amount of flow is small, the ability to dilute and disperse pollutants is small. At the same time, the pollutants are buried deeply underground and they are not irradiated by sunshine, thus there are no ultraviolet rays

to kill the bacteria, etc. Therefore, when underground water is polluted, it is not easy to restore it to the original state. According to domestic and foreign experience, the amount of work in treating pollution of underground water is great, it is time consuming, a lot of investment is required and the results are small. Also, pollution of underground water cannot be easily detected and monitored. Therefore, the problem of pollution of underground water in karst regions should be solved mainly by prevention. The concrete measures generally include the following:

1. Based on the principle of mainly prevention, we should actively prevent pollution of underground water, prohibit the release of industrial waste water and sewage and other pollutants into underground water. When pollution is discovered, we must take timely measures to eliminate the cause of pollution and cut off all polluting sources.
2. We must establish and make sound a network of underground water monitoring stations, develop environmental hydrogeological surveys and constant monitoring of underground water quality, understand the pattern of movement of underground water in the karst region and the change in water quality, make correct forecasts to improve the scientific basis for preventing pollution of underground water.
3. We should take effective technical measures to hasten the movement of underground water, and increase the amount of water to improve the self-purifying ability of underground water. For example, we can supply water artificially or regulate the amount of underground water. Localized pollution can also be eliminated by using purifying agents so that purification of underground water can be hastened.
4. We should establish a sanitary protection zone at the source of underground water. We can eliminate all polluting sources in the protected zone. We can plant a protective forest belt and strictly protect the environment at the source to prevent pollution.
5. We can strictly carry out environmental protection laws, strengthen environmental management, conduct comprehensive utilization and treatment of the "three industrial wastes" and sewage actively to reduce pollution of the environment and underground water by harmful substances.

9296

CSO: 5080/4071

SOME STATISTICS PROVIDED ON DISASTER AREA FARM PRODUCTION

Beijing RENMIN RIBAO in Chinese 22 Aug 82 p 2

[Article: "Quite a Few Areas Surmount Reduced Outputs Resulting From Disasters. Policies Demonstrate Power Against Serious Water and Drought Disasters"]

[Text] During the past 3 years, very many areas in the country have sustained serious water and drought disasters one after another, but thanks to the correctness of party programs and policies, the ability of each area to withstand disasters has been strengthened, and quite a few areas have surmounted situations of reduced outputs resulting from disasters.

In 1981 exceptionally large floods crested in the upper reaches of the Chang Jiang and the upper reaches of the Huang He. In the basins along both rivers, many major farming areas sustained waterlogging and flood disasters of a severity seldom seen since founding of the People's Republic; nevertheless, good harvests continued in agriculture for the year as a whole, and there was all around development of agriculture, forestry animal husbandry, sideline occupations, and fisheries.

A look at two provinces shows the following:

In 1981 Guizhou Province had a severe drought such as had never been seen in 60 years of record keeping. The province's disaster stricken area covered 133,000 square kilometers or 76 percent of the province's total area, and the disaster situation was far worse than in the great drought year of 1972. Nevertheless, 2.782 billion jin more grain was harvested than in 1972, and gross output value of agriculture was 5.9 percent higher than in 1980 and 46.5 percent higher than in 1972. In 1981 hogs in inventory in the province set an all-time high. There were 68,000 more of them in 1980 and 2,395,000 more of them than in 1972.

In 1981 Sichuan Province sustained flood disasters of a severity unprecedented for many years, but its grain output for the year as a whole totaled 69.3 billion jin, a 620 million jin or 1.2 percent increase over 1980. For the province as a whole, grain rations for the agricultural population averaged 552 jin per capita, a 25 jin increase over 1980. Per capita earnings averaged 85.17 yuan, a 2.35 yuan increase over 1980.

Last year the national gross output value of agriculture fulfilled plan by 101.8 percent, a 5.7 percent increase over 1980. Gross output value of farming (the growing of crops) was 5.3 percent higher than in 1980; gross output value of forestry increased 4 percent, gross output value of the livestock industry and fisheries increased 6 percent, and gross output value of sideline occupations increased 6.8 percent. Following 3 consecutive years of increases in yields, cotton and oil-bearing crops made still further tremendous increase, with oil-bearing crops increasing by 32.7 percent over 1980.

9432

CSO: 4007/592

'RENMIN RIBAO' ON ENTERPRISE CONSOLIDATION

HK030702 Beijing RENMIN RIBAO in Chinese 27 Sep 82 p 5

[Article by Yuan Baohua [5913 1405 5478]: "Carry Out All-Round Consolidation of Enterprise, Lay a Good Foundation for Developing the Economy"]

[Text] The glorious aims of the next 20 years of development in China were brought up at the party's 12th congress. All-round consolidation of enterprise may be seen as one of the important strategic measures in realizing these great aims and as such, must be carried out with care and thoroughness.

Raise Consciousness of the Importance of All-Round Consolidation of Enterprise

The decisions of the party Central Committee and the State Council may at the beginning of this year in connection with the all-round consolidation of enterprise, decisions designed to conform with the present situation in enterprise, received significant support from both cadres and the masses and the policies are now being initiated in all regions in a planned, step by step and directed way. However, some people still lack sufficient awareness of the significance of all-round consolidation of enterprise and feel that "we're consolidating something every year, it'll never be finished," or perhaps say that "it's going to take a lot of doing, let's not bother," or "we're all too busy with production and don't have any time for consolidation." Thus, it is very important that we clarify further the importance and significance of all-round consolidation of enterprise and thus cause cadres and the masses to attain a sense of party allegiance and urgency so that they may actively carry out and complete this work.

The necessities of such all-round consolidation of enterprise are decided by the party within the sphere of general tasks for this new era of history. Enterprise forms the basic unit of a socialist economy and it is within this arena that the labor force and the means of production come together and directly create material wealth. The richness of social products, the prosperity of the socialist economy are both, in the final analysis, decided by the state of enterprise production and administration. Enterprise may be likened to a cell; if the cell is healthy, the life force will flourish and then the whole body may strengthen and develop; if enterprise is functioning perfectly, with organization and administration scientifically arranged, is able to carry out activities according to objective economic rules, with management and administration highly effective, then the entire national economy may develop with problems.

In the 30 years since liberation we have already established a material, technological base on a relatively large scale with industrial enterprises totalling 380,000 in number, employing over 49 million people. Industrial fixed assets (original value) have surpassed 450 billion yuan, an increase of 36 times over 1949. Such figures form the reliable front of our continuous progress. To realize the general tasks in this new era of history, to gradually see China's construction program turning the country into a modernized, culturally advanced and highly democratic socialist country, we must first organize all-round consolidation in enterprise and begin a planned and focused improvement and build up in technology and thereby raise the levels of production technology and management administration in enterprise. Only in this way can we secure a firm foundation for the promotion of the economy and the all-round move to realize the four modernizations in the 1990's.

All-round consolidation of enterprise involves restructuring, reorganization, upgrading and readjustment as well as enhancing the quality of enterprise. In order to achieve the aims to be struggled for over a period of 20 years, the first 10 years require the constant application of the above four measures to totally complete economic readjustments, system restructuring and enterprise consolidation and reorganization, thereby getting well prepared for the massive development of the latter 10 years. The all-round consolidation of enterprise is based on the total adoption of the four aforementioned measures, and coming to grips with readjustment and restructuring means simultaneously coming to grips with consolidation. Many facts clearly illustrate that where enterprise consolidation has been carried out well, readjustment and restructuring follow and develop with relative smoothness, with the result that economic benefits also improve more quickly. Contrariwise, in cases where enterprise consolidation has not been handled well, then readjustment and restructuring are not practicable and party directives and policies and the laws of the country are not carried out, or if they are carried out, they become distorted or even totally out of control. The last few years of consolidation within enterprise have really improved the general situation in comparison to the 10 years of social disorder. But, if we take an overall look at the demands of all-round consolidation in enterprise, then the number of enterprises which have actually reached a position of good consolidation is small, while the greater number are to be found in a mid-way situation, with various different degrees of development and consolidation. There is even a small number of enterprises which still have very serious problems. Even among the small number of enterprises which have carried out successful consolidation, there is still a great deal of work to be done to strengthen their positions, and they are still a long way from the demands of modernized administration. The technological professional skills of workers are still relatively basic and cannot by any means satisfy the demands of socialist modernized construction. Many economic and technological targets have not yet reattained the highest levels at which they have stood in the past and are at present far behind advanced international levels. It is vital that we carry out firm consolidation, raise the overall quality of enterprise and greatly improve the profits and vitality of the entire national economy and thereby achieve a fundamental turnabout in the financial and economic situation in China.

Thus, we can see that the decisions made at the beginning of the year by the party Central Committee and the State Council to allow at least 2 or 3 years for all-round consolidation of state-run industry and enterprises is absolutely necessary and very timely. This is closely related to the question of whether or not we can carry out the strategic measures needed to achieve the great aims of the 20-year period of economic construction. We must fully realize the strategic significance of such consolidation and must all determine to apply ourselves with great strength to carry out this work.

Come to Grips With the Important Contradictions Within All-Round Consolidation of Enterprise

The decisions of the party Central Committee and the State Council state that with the all-round consolidation of enterprise, we must see the gradual construction of socialist, modernized industry with a high level of material and spiritual culture as well as traits of a very Chinese character. Thus, enterprise must carry out three basic construction programs to gradually create a democratic and centralized system of leadership, a communist-minded and expert army of workers and a set of scientific and cultural administration systems so that we may build good economic relations between the country, the enterprise and the individual workers, good product quality, good economic benefits, good work discipline, good cultural production and good political work, altogether making up the "six good aspects of enterprise." Regional and departmental differences within enterprise are extremely large and production administration activities as well as the level of technological administration vary a great deal. Hence, all-round consolidation is a multifaceted undertaking of extreme complexity and the question of how to actually go about it is one that needs a great deal of study.

All-round consolidation of enterprise requires that one take an objective look at the actual situation within enterprise--the undertaking cannot be carried out with one cut of the knife, nor can we revert to policies such as were enacted in the past with a gung-ho attitude and without regard for the realistic advantages of such actions. The basic guiding principle behind this new drive for all-round consolidation in enterprise is the elevation of the management and administration levels within enterprise, which will then clearly improve economic benefits. Consolidation must bear fruits and profits. The real measure of the success or failure of enterprise consolidation lies in the extent of economic improvements to be seen. Thus, we must seek out the important contradictions within enterprise by searching among all the factors in enterprise which influence the improvement in economic benefits and then aim to resolve these contradictions. By starting in this way, it will be a breakthrough into the all-round consolidation of enterprise and will, in turn, bring into play all the later, necessary work for consolidation of enterprise. In general it is true to say that if the leading group is weak, then it is difficult to take on the task of enterprise consolidation. Hence, a start must be made by consolidating the leading body of the enterprise. In enterprises where leadership is good, one can start by setting up a system of a sense of responsibility toward a healthy economy. For enterprises with impracticable production, a start must be made by strengthening market investigations, changing the direction of enterprise service, increasing product varieties and raising product quality.

Enterprises with high consumption or large-scale wastage can start by fighting such wastage. In cases of slack labor discipline or factories with incorrect attitudes, the starting point must be rectification of slack discipline. In enterprises with chaotic finances or illegal goings-on, the first move must be to counteract and fight back in the field of economic corruption and to consolidate and reorganize the enterprise's finances.

The key to this latest plan to consolidate enterprise is to consolidate and establish good leadership in enterprise. Without an organized leadership which endorses the party line of the third plenary session of the 11th Central Committee and which is determined to carry out party policies and measures, dares to resist bad influences from all around, is willing to suffer, will apply itself with vigor, has an understanding of the task, administrative capabilities, courage and knowledge, will blaze new trails and unite all comrades as well as sort out biased cadres, without such an organized leadership, it would be impossible to organize the work force and enterprise and extremely difficult to carry out all-round enterprise consolidation. Thus, we must reorganize and construct leadership groups with principles based on revolutionarism, youth, knowledge, and expertise. To solve these problems we must destroy the hindrances created by generations of capitalist trends and carry out party policies, especially those policies referring to the intellectuals. Our enterprises by no means lack bright talent; the problem is to teach the masses to love and respect the intelligentsia and create good conditions and favorable opportunities for them. Young and middle-aged cadres should replace old cadres, who should retire. This is vital for the future prosperity of the party, vital for a long and peaceful period of government in China and vital for the cause of socialism. If this is not done, the socialist cause will be adversely affected and mistakes of historical proportions will be made.

Another important key link in the present drive to consolidate enterprise is to improve and reorganize economic duty or responsibility. In the course of consolidation, all enterprises must collect together objective facts about their situation and, step by step, implement a system of economic responsibility, support the unification of responsibility, authority and profit, but place responsibility in a position of prime importance, encourage impartiality and the sense of being in control of one's own affairs, establish financial administration and technological and equipment administration. Furthermore, there must be active promotion and dissemination of all-round planned administration, all-round quality administration and all-round economic business accounting and scientific administration. For enterprise to carry out scientific administration, the real core of the matter is to achieve successful quota administration. Otherwise, the administration of the entire enterprise has no foundations. Rational quotas should be laid down first and when this has been done, then supportive measures and policies must be put into action. At present high consumption, over haste and large-scale wastage are all very common problems, and in our consolidation program we must treat wastage as an important target to be combatted and resolved.

This new consolidation program necessitates a joint, collective plan from both the organizational departments responsible and enterprise itself, to decide what the contradictions within enterprise are, what problems are to be tackled

this year or next year, what level should be reached by when. By joining forces, they should grasp the situation and realize the aims set down. Consolidation of enterprise must seek with determination to solve some of the longstanding knotty problems inherent in enterprise by improving workers' sense of responsibility and creating an attitude of support. There must be no adoption of evasive attitudes, nor will reversion to enterprise's old, former self be permitted after consolidation is completed. The most serious question that leading cadres must ask themselves is whether they dare face difficulties and attempt to solve these old, longstanding problems in enterprise.

Combine Together and Unify Consolidation and Readjustment

The four tasks of readjustment, restructuring, reorganization and upgrading are all interrelated and all mutually stimulate each other. In order to carry out all-round consolidation of enterprise, it is necessary to closely join together economic readjustment and system restructuring.

Enterprise consolidation must primarily be linked up with readjustment. Of great importance is the readjustment of product structure. On the basis of the national plan and socialist demands, we must eliminate old products of high consumption and poor performance, put controls on production of certain products while, at the same time, actively developing a healthy market for brand name products and those with low consumption and high performance. Similarly, we must strive to raise product quality and increase product variety, while aiming at making enterprise products both attractive and reasonably priced. In the case of some enterprises which form the backbone of heavy industry, we must make sure that long-term production products are organized well in advance and that design and trial production are also up to standard, thereby preparing ourselves well for future economic development. Of equal importance is the readjustment of enterprise organizational structure. With principles of economic rationale and expert aid and on the basis of production capacity ratification and composite equilibrium, we must carry out reorganization and readjustment as well as organizational unification within enterprise. At present many enterprises have backward production technology, high energy consumption, low product quality and serious losses while competing with advanced enterprises for raw materials. This is a great hindrance to the rational distribution of the labor force in society as well as to the raising of economic benefits. Thus, under the guidance of a nationally united plan, we must support these enterprises and bring about a turnabout in their present predicament.

Enterprise consolidation must also be joined together with the restructuring of the economic system. In recent years, many enterprises all over China have been carrying out pilot schemes with large-scale autonomous administrative and management powers. Last year, the scheme went on to try out the system of economic responsibility by unifying responsibility, power and profits, giving the enterprises internal motivation and external force, thereby improving the enterprise and the workers' socialist enthusiasm, bringing life to the national economy, promoting economic readjustment and spreading enterprise consolidation. Movement in such a direction is entirely correct and the results are obvious, making a good beginning for the restructuring of the economic system in China. The main problem at the moment is that restructuring is unbalanced: While the

microeconomy has improved somewhat, macromanagement has not improved in line. To solve this problem we must support the basic direction of restructuring and collate all our experience and training methods, thereby gradually improving and developing. Naturally, it is important not to overdo things and tie things up to such an extent that the new-found enthusiasm within enterprise and among workers is quashed. In this new drive for enterprise consolidation, we must create room for life and movement within enterprise on the basis of the government guidelines and through support of the need for independent power for enterprise. In addition, systems of rewards and penalties must also be introduced, systems in which good administration and high benefits produce good profits, where if administration is somewhat lacking, not only will there be no profits but also suitable penalties, which will help promote subjective motivation, exploit full potential, raise economic benefits and produce an electric-like working atmosphere. If the proportional profits reaped by an enterprise are not reasonable, then suitable readjustments may be made. Suitable sanctions must be applied against those who try by underhanded means to achieve unreasonable profits, thereby harming national interests.

We must also actively carry out unification between consolidation and the restructuring of the system of internal enterprise leadership and organizational structure. Our enterprises are socialist enterprises and our workers are the masters of the enterprises. The essence of the socialist system is to set up a highly centralized system of leadership with unified command on a democratic basis and with the guidance of the party. Enterprises that have been consolidated must set up a party committee which will be adept at uniting the enterprise and the workers and at carrying out party policies and the country's laws, establishing good production technology with the factory head at the forefront and setting up a unified directive system of administration and management, strengthening the workers representative committee system and ensuring that the workers exercise their democratic powers in the correct way with the family as centrally important. The party Central Committee and the State Council have already introduced a few ideas for a move in this direction and we must all strive to put them into action in all aspects of society. At present, an important problem to be solved is that of the division of work in internal enterprise party administration. Committee members should invest their driving spirit in carrying out the party's directives, strengthening party construction and improving political thinking and work. Production administration activities within the factory should be under the command of the factory chief, who should take all-round responsibility for such work as well as bring into play systems of production control. Organizational structure within enterprise should be readjusted and restructured on principles of simplification, unification, efficiency increase and saving as well as the combatting of bureaucracy, thereby overcoming the problems of overstaffing, bureaucracy and low levels of efficiency.

Enterprise consolidation must also be linked with improvements in technology. If we want our economy to improve, we must first sort out improvements and developments in technology that we already have in enterprise. Put the two go hand in hand, for while improving technology, we must also carry out enterprise consolidation. With enterprise consolidation completed, we will see improvements in technology as both fast and profitable. Without consolidation within enterprise, there is a certain pointlessness to technology improvement, for investments

are large and results often small or poor administration often produces large wastage of finances. Technology improvements should be linked with product structure and readjustments in the organizational structure of enterprise. Based on market demands, there must be improvements in product quality, introductions of new products or lines, new processing methods, new technology and refurbishing of outdated equipment and machinery, for there is no point in blindly establishing new outlets while pointlessly expanding production capacity. Production development funds for enterprise should mainly be used for improving technology and should not be funneled into material benefits or any other areas.

Make Great Efforts to Strengthen the Construction of a Team-Like Work Force

Workers are the mainstay of the construction of socialism, and thus it is impossible to organize socialist enterprise and carry out socialist modernization construction without a highly skilled, highly disciplined, correct thinking work force with a high level of consciousness. China's working class has always had a great tradition of patriotism, love of socialism, fearless toiling, strong organization, strict discipline and arduous struggling. However, the downfall of Lin Biao and the gang of four resulted in a great deal of damage to this glorious tradition. Through consolidation and reconstruction, planned nurturing and training, we can restore this great tradition to its previous glory.

Hence, we must strive to consolidate the organization of the workers, and through fixed staffing and quotas, we must organize production and eliminate overstaffing and poor work efficiency. All enterprises with healthy production and work situations must implement and achieve fixed staffing and quotas on the basis of fixed production and work tasks and the setting up and improving on the system of personal responsibility. Those enterprises which do not have satisfactory production or work situations and which do not have sufficient tasks to carry out, must consolidate in accordance with production scales found in the former group of enterprises with satisfactory performance. To fully complete the first line of production, we must select those workers with the best health, greatest consciousness and youthfulness to work on this front line. After the setting of fixed staffing and quotas, surplus workers should be drawn off and actively organized and trained to do other jobs. This excludes those workers redistributed by the relevant departments and those too old and weak to be moved. In order to ensure that each surplus worker is placed in a suitable position of work, enterprises should organize either individually or jointly, "worker services" or "life services" to allow and help the workers to open and develop new directions in production.

We must genuinely strive to improve worker discipline. Modernized large-scale production requires strict organizational discipline, and we must make every effort to further educate workers in the importance of organization and discipline. This will help eradicate anarchy, irresponsibility and slackness. Furthermore, on the basis of improving workers ideological education, we must draw up "workers regulations" and a system of reward and penalty.

We must strengthen and improve ideological and political work. In the construction of a socialist enterprise, not only must there be a high degree of material civilization, but also a high degree of spiritual civilization. Thus, enterprises must seek to bring economic work very closely together and strengthen ideological and political work while developing a socialist spiritual civilization, by creating workers with high ideological, moral, cultural and disciplinary values. The fundamental task of enterprise ideological political work is to educate the workers through the propagation of Marxism and the thoughts of Mao Zedong. Using many different methods, we must effectively and systematically imbue workers, particularly young workers, with proletarian ideology, helping them to strengthen their faith in the advantages of socialism, supporting them in taking the socialist road and establishing lofty communist ideals. We must help them get a clear idea about their position as masters over themselves, help them foster patriotism and a revolutionary spirit and help them to consciously put the good of the entire proletarian class and the country in first place and contribute greatly to the socialist modernization program. We must completely eradicate such ideas as "rewards are all-powerful" and "ideological and political work is dispensable." Such ways of thinking and seeing the world are incorrect and we must strengthen the system of political work. At the same time, we must improve and change ideological and political work methodology in accordance with the characteristics of this new era in time, making all-round and comprehensive education and propaganda the most important, adopting vivid, vigorous, thorough and penetrating policies. We must promote the glorious tradition of the party's political work, gradually moving toward a systemization and standardization of ideological and political work. New workers who arrive in a factory should systematically receive education in the three histories (factory, party and modern history) as well as the teaching of socialism, patriotism and the historical mission of the proletariat. In addition, training should be provided in the relevant areas of technology, safety and so on. Ideological and political work is a branch of science. It is also an important and indispensable area of science in the unification of all workers for the setting up of socialist enterprises. Political workers should work hard, examine their tasks in detail, carry out their work with vigor and investigate everything without fear in order to contribute their own talents to the four modernizations construction program.

All-round personnel training should be carried out with planning, with specific aims, and should be done in stages and in small groups. Such training will raise workers' level of ideological politics and the level of their technological skills and duties. Such a strategic move will lay a solid foundation for the realization of the four modernizations. Machinery is dependant on people grasping its operation, systems are dependant on people carrying them out and production tasks are dependant on people fulfilling them. The speed and level of development in enterprise as well as the extent of economic benefits to be drawn from it are all dependant on the quality of the workers' political, cultural and technological level. The difference between China and economically advanced countries in terms of economic strength, science and technology, material and cultural life and management and administration is, in the final analysis, based on the differences in the level of culture, science, technology and administration of the people. At present, the management level of China's cadres and the level of culture and technology among the workers in China are

relatively low. Experts in various fields of technology are fairly few, none of which is conducive to the demands of the modernization construction program. On the basis of investigations in various areas and departments, it was established that of young workers in China, around 70 percent had an actual cultural level of education comparable to or below the level of a middle school graduate. Thus, if we do not quickly come to grips with planned training, the forward movement of modernized construction may be lost. We should view this situation with seriousness and urgency. As far as all-round training is concerned, the party Central Committee and the State Council pointed out at a very early stage that with correct party policies and the application of each region's specific experiences, such problems may be overcome by leaders at all levels as long as they appreciate the importance of implementing ideological, organizational and funding strategies. Top cadres should take a leading role in participating in such training sessions, thereby setting an example and making every effort to learn and understand those things they do not comprehend and thereby fulfilling the demands of modernized construction. The treatment of worker training should be the same as the handling of production tasks, with strict demands, regular examinations and training results forming the basis of general promotion chances. From now on, new workers entering a factory or changing jobs must all undergo training and examination and may only take up their posts after proving themselves to be up to certain standards.

Establish Favorable Conditions for the All-Round Consolidation of Enterprise

In order to achieve all-round consolidation of enterprise, we must, of course, rely mostly on the strength of enterprise itself and the enthusiasm of the workers within enterprise. At the same time, we must rely on the support of the top-level and related departments, which will also help create favorable external conditions for enterprise. In some provinces and cities, enterprise consolidation has been incorporated into the consolidation of leadership organizations, thereby tackling these two kinds of consolidation at the same time. This has included cutting down on various organizational structures, readjustments of various bodies, cutting down on staff and restructuring irrational rules and regulations--right down to solving on-the-spot leadership problems--improvements in work attitude, raising of work efficiency and the promotion of the movement to consolidate enterprise. All these moves have been warmly welcomed by enterprise. Such actions as these are well worth noting.

This new move at consolidation in enterprise is based on principles of construction and all-round harnessing. In comparison to the previous move to consolidate enterprise, it varies in that it is richer in content, greater in its demands and stronger in its political bias and touches on every aspect of enterprise administration and every individual worker, in addition to touching on bodies of leadership in administrative departments. Thus, it is a formidable and complex task and requires the serious attention of the entire party and cooperation from all areas in motivating the masses. Otherwise, it cannot succeed. The key to the matter is for political bodies on every level to strengthen their leadership and make this one of the most important things on their agenda in order to carry out all-round planning, organizational coordination and synchronized consolidation. We must guide and help in the work of consolidating enterprise, investigating various possibilities and remaining at

grass roots level for experience's sake, thereby solving all problems which might raise their heads. Furthermore, we must promptly collect together and exchange experience, guide and promote enterprise to carry out consolidation on its own initiative in accordance with the demands of the Central Committee. Similarly, we must quickly urge all related departments to arrange organization, coordination, service and surveillance and make improvements in all four of these areas so that healthy and profitable conditions may be set up for enterprise and so that we must see the continued promotion of smooth and penetrating development in the all-round consolidation of enterprise.

CSO: 4007/10

ROLE OF MANDATORY PLANS IN COUNTRY'S PLANNED ECONOMY

HK040808 Beijing GUANGMING RIBAO in Chinese 25 Sep 82 p 3

[Article by Zhang Ping [1723 5493]: "The Place and Role of Mandatory Plans in Planned Economy"]

[Text] In a report submitted at the 12th CPC National Congress on behalf of the CPC Central Committee, Comrade Hu Yaobang pointed out: "For the production and distribution of the means of production and means of subsistence bearing on the national economy and the people's livelihood in the state economy, and especially for backbone enterprises concerning the whole economic situation, mandatory plans must be carried out. This is an important embodiment of our socialist system of ownership by the whole people in the organization and control of production." A rule in principle is thus put forth for the place and role of mandatory plans in our planned economy.

Planned economy is a national economy consciously controlled according to set plans on the basis of public ownership. At the current stage of socialism in our country, not given a high degree of socialization of production, not only are there two forms of public ownership, but a given degree of individual ownership also exists. Commodities and currency cannot be done away with. It is also necessary to develop the production and exchange of commodities. These features of the socialist economy determine the varied regulating patterns of the socialist economy. Not only must we carry out mandatory plans but we must also enforce plans of a guiding nature. Not only must we introduce planned production and circulation but we must also take regulation by market forces as a supplementary factor.

For a long time, our planning system was incompatible with the features of our socialist economy. We put too much emphasis on the point that plans must be complete and elaborate. We paid no attention to necessary regulation by market forces. Products that should be subjected to unified plans were also controlled in a too excessive or too rigid manner. No attention was paid to arousing the enthusiasm of departments or areas. The proper interests of enterprises were ignored. Administrative means were chiefly relied upon. We did not pay attention to applying the economic lever and were not good at doing so. Economy was not enlivened, interfering with the improvement of economic results. Therefore, we must act according to the basic principle put forth by Comrade Chen Yun, which calls for "taking economy as the main factor and regulation by

market forces as the supplementary one," and reform our planning system. However, should we, as some comrades suggest, make a change in mandatory plans, or lower them to a secondary place? We cannot. Of the many regulating patterns of the socialist economy, mandatory plans play a leading role in the realization of the planned economy. Where there are no mandatory plans as a regulating factor, there is no socialist planned economy. The reasons for this are the following:

Only by adhering to mandatory plans can we guarantee a basic balance between social production and social needs. Social needs are many-sided. There are not only needs for production but also needs in everyday life. There are not only fundamental needs closely related to the national economy and the people's livelihood but also nonessential needs which do not have a great effect on the national economy and the people's livelihood. Social needs always change with the improvement in material conditions and in the people's standard of living. But products related to fundamental needs in the national economy and the people's livelihood, such agricultural products as grain, cotton, edible oil, and so forth, and such industrial products as petroleum, coal, heavy-duty equipment and sophisticated equipment and important chemical and construction materials, and so forth, are required in large quantities, while the variety involved is not great. There is also a relative degree of stability. The balance between production and needs can be entirely subjected to direct planned control on the basis of correct or relatively correct calculations. Relations between them are established through mandatory plans. With a balance between the needs in the national economy and the people's livelihood and production maintained, a material guarantee is obtained for the macroscopically planned and proportionate development of the national economy. An imbalance between various sectors of the economy involving the whole situation is unlikely.

Only by adhering to mandatory plans can we make full use of resources within the national scope and rationally organize and develop productive forces. Given public ownership of the means of production as a basis, the fundamental interests of the state, areas and enterprises are synonymous. There exists no clash between partial and overall interests. To arouse the enthusiasm and initiative of areas, departments, enterprises and workers in building socialism, we must invest some power in areas and enlarge the decisionmaking power of enterprises. After increasing the vested authority, we must link up the main economic activities and development goals of the state, areas and important enterprises through mandatory plans, guided by the principle of coordinating all the activities of the nation like pieces in a chess game. Thus, we can bring the development of the superior economic features of given areas, the utilization of resources and the arrangement of productive forces, and so forth in line with the demands of the proportionate and harmonious development of the whole national economy and the improvement of social economic results, avoiding the waste of social wealth and resources resulting from overlapping construction projects and blind development and guarding against a tendency toward departmentalism, decentralism and liberalization without regard to overall interests.

Only by adhering to mandatory plans can we enable the state to directly control the necessary material means with which to guarantee the handling of priority

construction projects and the strengthening of weak links. Because economic development is a changing process, it is impossible to bring the formulation and execution of plans entirely in line with objective economic conditions and their changes. Nor is it possible to maintain an absolute balance in development between different production departments, between different economic units and between various links in social reproduction. Meanwhile, various social and political factors have a constant effect on the economy. Therefore, the balanced and proportionate development of the national economy is relative, while partial interference with such balanced and proportionate development is constant. In these circumstances, for backbone enterprises concerning the whole economic situation and for the production and distribution of important products concerning the national economy and the people's livelihood, the implementation of mandatory plans can enable the state to directly control the necessary material means and concentrate the necessary manpower, material and financial resources on strengthening the weak links and departments appearing in the process of the development of the national economy; or to adapt to the strategic goals of economic development by consciously readjusting the industrial structure and rearranging various macroscopic economic plans; or to give priority to the development of advanced economic departments, in light of the needs of the long-term development of economic construction. This is to control the orientation for development in the national economy and ensure the proportionate and steady growth of the national economy.

By stressing mandatory plans as the main factor, we are talking in terms of their place and role in the realization of the planned economy. We do not mean that the more mandatory plans the better. Concerning those small commodities, such as small native products, daily necessities and handicraft art articles, the commercial departments and production units can themselves form links, sign contracts and arrange production, doing so in light of changing market needs. Those products remaining after the commercial departments make their choice, or those products exceeding their purchase plans, can be sold on a consignment basis, or sold by the production units themselves. Here the state does not hand down plans or targets. Instead, market forces are taken as a regulating factor under the guidance of state plans. Regarding those products which are not related to the national economy and the people's livelihood but which have a relatively great impact on economic construction and the people's livelihood, the state, based on different conditions concerning social needs, can impose mandatory plans in a great or small number of cases while setting targets of a guiding nature for the remainder--reserving for given areas or enterprises the appropriate authority to act flexibly. Thus, given mandatory plans as the core, mandatory plans, plans of a guiding nature and the regulating role of market forces are combined to form a scientific system regulated by the socialist economy, enabling multi-layered socialist economic activities, various social needs and the production of various products to develop in a proportionate and well-coordinated manner.

One school of thought holds that mandatory plans are necessary only where there is a shortage of materials and an imbalance between production and needs. With the task of economic readjustment completed and the industrial structure rationalized, we should make a complete switchover to plans of a guiding nature. This idea is worth being discussed. The feature of a guiding plan is that it

has no binding effect on an enterprise, giving it flexibility and initiative in its production or operation efforts to adapt to changes in market demand. The guiding plan plays an important supplementary role in balancing production and needs in regard to the secondary aspects of economic activities. But given its lack of binding force, an enterprise often ignores such a plan, prompted by its own economic interests or under the pressure of mutual competition. Instead, profitability or unprofitability, or the amount of profit available is the basis on which it arranges its own production efforts. The combination of guiding plans with the use of economic levers stimulates an enterprise, in regard to material rewards, to bring production efforts or operations in line with the demands of macroscopic national plans. But given everchanging social economic conditions, the degree of rationality of such economic levers as pricing, taxation, and so forth can be only relative and is also often in a state of fluctuation or conflict between rationality and irrationality. Therefore, it is impossible to reflect the interests of various economic units in an entirely rational way. Meanwhile, guiding plans can only guide and influence the orientation of an enterprise's production efforts or operations and cannot control the limits for the expansion or reduction of the production of various products in an enterprise. If guiding plans are also applied to important products related to the national economy and the people's livelihood, the state cannot control in a steady manner the material means necessary to guarantee the proportionate development of the national economy. Nor can it guarantee the fundamental needs for priority national construction and the people's livelihood. The socialist planned economy will thus become a matter of national interference, just as is practiced in capitalist countries. Therefore, the functions of mandatory plans cannot be replaced by those of guiding plans. We cannot retrace the old path of using mandatory plans to control everything in our emphasis on the planned economy as the main factor. Nor can we completely replace mandatory plans with guiding plans.

At present, in reforming the planning system and the planning methods, how should we improve and correctly develop the role of mandatory plans? I believe that the following several problems must be immediately studied and solved.

1. We must increase the scientific nature of mandatory plans. Given its compulsory nature, a mandatory plan, if compatible with objective realities and with objective laws, can effectively guarantee the planned and proportionate development of the national economy and the realization of the fundamental demands of the planned economy, demonstrating the superiority of the planned economy. Otherwise it will bring destructive consequences to the national economy. In these circumstances, the greater its authority the more serious the negative consequences. Therefore, the key to the correct development of the role of mandatory plans lies in increasing its scientific nature and building its compulsory and authoritative nature on a scientific basis.

2. We must combine mandatory plans with the proper use of economic levers. In the socialist period, planned economic links are brought about through in a roundabout way such as the relationship between commodities and currency. Therefore, in our guiding plans, we must emphasize the use of economic levers. In our mandatory plans, we must also adapt to this feature of the socialist economy, we must take into full consideration and apply the laws of value and correctly use pricing, taxation, credit and other economic levers.

3. In line with the economic conditions and changes in different periods, we must properly define and readjust the scope for mandatory plans. We cannot make the scope for mandatory plans too broad, incorporating therein the economic activities that should not be placed under the direct control of state plans and rejecting regulation by market forces. Nor can we make the scope for mandatory plans too narrow, excluding therefrom economic activities that must be placed under the direct control of state plans and letting market forces spontaneously assert themselves. Then what principle should be used to determine the scope for mandatory plans? Some people favor acting according to the "categories of products," some others the "categories of enterprises," and still others the "categories of tasks." I believe that we should chiefly act according to the "categories of products." Guided by the importance of different products in satisfying social needs and by conditions concerning production and needs, we must concretely determine those kinds of products that should be completely or fundamentally subjected to mandatory plans, those that should be mostly subjected to mandatory plans and those that should be partially subjected to mandatory plans. On this basis, we must link the "categories of enterprises" and the "categories of systems of ownership" with the needs of priority state construction projects and introduce different ways of management in light of different conditions.

CSO: 4007/10

STATE FARM PRODUCTION TEAM ACCOUNTING SYSTEMS SURVEYED

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION IN CHINA] in Chinese No 8, 82, p 14

[Article by Hu Yimin [7579 1355 3046]: "Preliminary Remarks on Economic Accounting in State-Owned Farm Production Teams"]

[Text] A combination of accounting done by specialists and accounting done by the masses of staff and workers for a good job of production team economic accounting holds major significance for all around strengthening of state-owned farm economic accounting, and for improving economic results. This is particularly the case at this time when the system of assumption of sole responsibility instituted by state farms has developed from state contracting of work tasks to farms to the contracting within farms of work tasks level by level and task by task, and on to the contracting of work tasks with production teams. In a situation in which this is combined with a production responsibility system in which calculation of remuneration is linked to production, the strengthening of production team economic accounting holds particularly major significance.

1. Need For Production Teams to Institute All-Around Economic Accounting

Production team all-around economic accounting includes the application of statistical accounting, bookkeeping accounting, and business accounting systems. Cost accounting is the key link in economic accounting. Product costs reflect how much labor is consumed in production, and the amount of profits or losses are an overall indicator of results. Therefore, production teams need to make an accounting of product costs and calculate profits and losses. Farms and branch farms should make all production cost items and production expense items a part of production team accounting. They should amortize on production teams indirect expenses (such as enterprise management expenses and joint production expenses) in accordance with plan or fixed quotas, and include all fixed assets belonging to production teams within production team accountings, withholding depreciation from production teams in accordance with regulations.

Accompanying state-owned farm institution of economic responsibility systems of assignment of full responsibility for financial matters and linking the calculation of remuneration to production, production teams have internally

instituted a combination of overall contracting and specialized contracting, with some of them doing specialized contracting with teams, and others doing specialized contracting with individual workers. Consequently accounting of production team production expenses and accounting for profits and losses should also be done in terms of those to whom contracting has been done, with accounting for teams and individual workers. This means that an accounting should be made for any party with whom contracting has been done.

To meet the needs of economic responsibility systems of assumption of sole responsibility for financial affairs and linking calculation of remuneration to output, the state-owned Mengdi Farm under Lincang State Farm and Land Reclamation Branch Bureau in Yunnan Province has taken a first step in instituting production team product cost accounting and the calculation of profits and losses, which was fairly effective in arousing the enthusiasm of every production team.

2. Inclusions in State-Owned Farm Production Team Economic Accounting

Strengthening of production team economic accounting requires organically linking the three different accounting methods of statistical accounting, bookkeeping accounting, and business accounting, making statistical accounting the basis and bookkeeping accounting the core in close combination with business accounting for all around production team economic accounting.

(1) Production team statistical accounting entails use of quantity indicators in the production process to reflect and superintend the pace of production, product output, varieties, quality, labor attendance, labor productivity, material consumption and such production activities, and to provide raw data for bookkeeping accounting. Production teams should genuinely strengthen statistical accounting, establish and perfect statistical accounting cards and all kinds of raw records, and establish and perfect statistical accounting reporting form systems and publishing and analysis systems for accurate and timely depiction of the status of production team production activities.

(2) Production team bookkeeping accounting is done in monetary terms. Calculation, supervision, control, verification, analysis, forecasting, and decisions are made about expenditure of labor and results of operations in the production process so as to be able to improve management of operations steadily and improve economic effectiveness. Inasmuch as production teams should account for all costs of products and figure profits and losses, they should set up an accounts system and account books in accordance with their accounting systems, and periodically post accounting reports. However, accounting systems and account books must be set up in accordance with production team realities, and be simple and easy to use on the principle of satisfying accounting requirements. At the present time the various farms under the Lincang State Farm and Land Reclamation Branch Bureau have adopted the debit and credit double entry method of keeping accounts. The production team has set up 22 accounting categories on which it keeps accounts, funds accounting for 12 of the accounting categories, and sources of funds accounting for 10 of the accounting categories. In order to meet the requirements of assumption of sole responsibility for financial matters and linking the

calculation of remuneration to output, accounts for production expenses have to be clearly rendered household by household according to specialized contracting done by each household.

Production team bookkeeping accounting both has to have cost accounting as its core and account for funds and profits. In order to make use of the role of bookkeeping accounting for the promotion of production, production teams must establish bookkeeping accounting systems of accounting, publishing, analyzing, and forecasting, stir the enthusiasm for cadres and workers for taking responsibility for their own finances, find out where gaps exist, formulate measures, tap potential, and steadily increase economic effectiveness.

(3) Business accountings done by production teams apply principally plan targets and technical quality indices to make an accounting of technical and economic results for selection of optimum production techniques and production management measures. Emphasis must be given accounting for the labor productivity rate of different operating methods, an accounting of the expenditure of labor and results obtained from different techniques, and an accounting of the in operation rate of fixed assets and facilities, their utilization rate, and results thereby attaining the goals of high output, low consumption, and economic effectiveness.

3. Foundation Work For Production Team Economic Accounting

Of principal importance as the foundation work for production team economic accounting is the following:

(1) Enhancement of quota management. Use of a combination of the farm's relevant regulations and its own realities to formulate and perfect quotas of various kinds including expense and costs quotas to serve as a basis for accounting.

(2) Perfection of raw records. These are the main foundation of production team economic accounting. Timeliness and accuracy of raw records determine effectiveness and truthfulness of economic accounting. Therefore, production teams must perfect raw records and statistical account books and cards, unify forms, unify the specifications for calculations, and unify methods of calculation in order to maintain the firsthand nature and effectiveness of raw records so as to provide an authoritative basis for economic accounting.

(3) Establishment and perfection of systems for checking measurements and for checking prior to acceptance. All production activities of production teams must be founded on specific technical quality standards and quotas, timely calculation, inspection, and checking prior to acceptance in order to assure the correctness of all raw records for production activities.

(4) Establishment and perfection of a property management system. It is necessary to establish and perfect systems of responsibility for use and maintenance of all fixed assets, and to assure the regular use and operating condition of fixed assets. There must be a strict responsibility system for carrying for products and raw materials, and strict procedures for figuring

amounts entering and leaving storage to maintain accuracy about and intactness of products and raw materials. A cash management system must be strictly enforced to assure that national property remains intact.

4. Analysis of Production Team Economic Activities

Production teams must establish and perfect economic analysis systems and carry out comprehensive, individual, regular, and irregular economic activity analyzes. At the end of each month, production teams should make a comprehensive analysis, making a diligent analysis of how well production operational plans and cost plans have been carried out. On the basis of actual circumstances, production teams should carry out special economic activity analysis at unscheduled times of fairly large problems that impair fulfillment of production plans, cost plans, or business quotas to elucidate the reasons and take effective measures to bring about a solution.

9432

CSO: 4007/585

NATIONAL

BRIEFS

SUBSTANTIAL LIVESTOCK INCREASE--Implementation of the party's farming and animal husbandry policies and institution of diverse forms of responsibility systems for livestock production following the Third Plenary Session of the 11th Party Central Committee have stirred the enthusiasm of all quarters for the raising of livestock and poultry. Substantial increase has taken place in all kinds of livestock and poultry products, and the commodity rate has increased very rapidly. Statistics from the sectors concerned comparing 1981 with 1978 show a 47.5 percent increase in total national output of beef, mutton, and goat, a 59.4 percent increase in milk output, a 23.8 percent increase in amounts of fresh eggs procured, and 19.5, 21, and 71 percent increases respectively in quantities procured of wool, sheep skin, and goat skin. Average per capita consumption of meat, milk and eggs increased in the large cities of Beijing, Shanghai, Tianjin, Chengdu, and Chongqing, meat by about 10 jin, milk by about 5 jin, and eggs by about 7 to 8 jin. [Text] [Beijing RENMIN RIBAO in Chinese 28 Aug 82 p 2] 9432

CSO: 4007/592

COMMENTARY URGES PEASANTS TO HAND OVER MORE GRAIN TO STATE

Beijing ZHONGGUO NONGMIN BAO in Chinese 4 Jul 82 p

[Article by staff commentator: "Hand Over More Grain and Good Grain"]

[Text] There has been an upsurge in the state's procurement, purchase, and storage of summer grain. Zhejiang Province has overfulfilled the state's procurement and purchase task for summer grain. Some prefectures and counties in other provinces and municipalities have fulfilled their state procurement and purchase tasks. In the procurement and purchase process, there have appeared in various areas many advanced models in handling over more grain and good grain.

To fulfill the state procurement and above-quota purchase task is the glorious duty of the peasants. The tasks assigned to the production teams and households for grain tax and surplus purchase should be fulfilled on schedule and according to the required quantity, quality, and variety; if there is still surplus grain, it is recommended that some more above-quota grain or negotiated purchase grain continue to be sold to the state, so as to make more contributions to the state's construction. To hand over more grain and good grain is a practical act showing love of country and love of socialism. It is glorious to hand over more grain! It is glorious to hand over good grain!

At present, in surplus grain areas the peasants have a lot of grain in hand and their stocks are large. However, there are still difficulties in the balance of income and expenses with regard to the state's grain. The level of our country's productive forces is still not high, its capacity to resist national disasters is still not strong, and grain production is still not stable. There is also an imbalance between areas, and every year some areas are hit by natural adversity and become grain-deficient. Since this spring the Huanghe River basin has been dry for a long period of time, which adversely affected spring sowing. Recently, heavy rains have caused disastrous floods in some areas in several provinces in the south; and crops have been damaged by drought in some areas in the northeast. In the areas that have suffered from flood or drought, plant diseases and insect pests are fairly serious. This requires that areas with bumper harvests of summer grain hand over more grain and good grain so as to make up for poor harvests in disaster areas so that they can restore and develop production.

Now, a small number of commune numbers and commune and production team cadres, with regard to grain distribution, are thinking of the collective and the individual retaining more grain and of handing over less grain to the state; they think of keeping the grain of good quality or variety and handing over to the state grain the quality or variety of which is poor, shrivelled, or mildewed; and a small handful of production teams and households, only considering the individual's immediate interests and not considering the state's long-term interests, have not fulfilled the tasks of grain procurement and above-quota purchase of grain but are taking their grain to market and selling it at high prices. This is a mistaken tendency of liberalization worthy of note and it must be conscientiously corrected.

When the grain departments put the grain in storage, they must check and accept the grain according to stipulated standards, and strictly carry out the policy of fixing prices according to quality, not forcing grades and prices down and also not raising grades and prices. It is possible that there will emerge places in which it is "difficult to sell grain." They must take practical measures to overcome this difficulty, and so long as the grain meets the quality standard they must open themselves wide to purchases and cannot limit or refuse purchases.

The leaders of commune and production teams must overcome the state of weakness and slackness, and concentrate their energy on getting a good grip on the work of state purchase of summer grain. They must carry out for peasants education in patriotism and in taking account of the interests of the state, the collective, and the individual, arouse in the commune members the enthusiasm for deeply loving the state and socialism, and consciously fulfill the tasks of procurement and above-quota overpurchase of grain. The rural basic-level cadres and the members of the CPC and the CYL must take the lead in handing over more grain and good grain.

9727

CSO: 4007/470

DOUBLE CROPPING LATE RICE HARVEST EXPERIENCE RELATED

Beijing NONGYE KEJI TONGXUN [AGRICULTURAL SCIENCE AND TECHNOLOGY NEWSLETTER]
in Chinese No 8, 1982 p 10

[Article by Wang Xuedong [3769 1331 2767] of the Anhui Provincial Agricultural Sciences Academy: "Bumper Harvest Experience of 'Two Yellowing and Two Darkening' of Double Cropping Late Rice"]

[Text] It was discovered that in order to reap a paddy rice bumper harvest, the color of the leaves must alternate between yellowing and darkening. Correctly grasping the growth pattern indicated by the alternating of "two yellowing and two darkening" of the leaves of double cropping late rice can realize high yields.

The so-called "two yellowing and two darkening" refers to the following: The period from the time double cropping late rice returns green to the end of tillering is the period when the formation of the leaves and tillering take place. It is also the time when the number of panicles is determined. From the time the plant returns green to the peak of the tillering, the color of the leaves is darker than at the time of transplanting and at the end of tillering. This darkening period is called the first "darkening." During this first darkening period, we should quicken the speed of the tillering, promote its multiplicity, and increase the formation of panicles. During this period, nitrogen metabolism is vigorous, leaves grow fast, and if we apply too much fertilizer, uncontrolled growth may easily occur. From the end of tillering period to before differentiation of the flower buds, the leaves on the stem gradually recede to yellow. This yellowing period is called the first "yellowing." To prevent ineffective tillering, we should accordingly increase the content of hydrocarbons. This would help to form thick and strong panicles and lay a foundation for growing large panicles and more grains. During the stage from differentiation of young panicles to heading, and this combines with the heavy application of fertilizer, make the second "darkening" occur. The process in which late rice first experiences jointing and then begins young panicle differentiation, plus the fact that fertilizer is used during the growing of the young panicles, prompt the occurrence of the second "darkening." This second darkening assures an adequate supply of nitrogenous nutrients needed by the plants, strengthen the synthesis of hydrocarbons, and stimulate good development of panicles. If the color of the leaves during the panicle formation period is not dark, this

would be an indication that carbon metabolism and nitrogen metabolism are both weak and it is difficult to produce strong plants and large panicles. After heading and flowering, the rice plant undergoes mainly carbon metabolism. At this time, the products assimilated by the leaves and the substances stored in the stalks are gradually transported to the panicles and grains. The color of the leaves gradually changes to yellow and thus, the second "yellowing" occurs. Practice proves that as long as we use the technique of accelerating and controlling the application of liquid fertilizer during the course of growing late rice we would be able to alternate the color of the leaves rhythmically between yellowing and darkening and realize "two yellowing and two darkening," as well as "a short period of yellowing and a long period of darkening." We then can obtain more panicles, stronger stalks, more and fuller grains, and a high yielding colony that is free of disease and lodging.

To grasp the pattern of growth and development of "two yellowing and two darkening" of late rice and to realize high and steady yields, we must grasp the change between yellowing and darkening according to the characteristics of late rice varieties. We must also use soil as the basis and seedling as the indicator to promote a combined application of fertilization, irrigation and control, and to regulate field management measures.

I. To improve and cultivate the soil, we must do well in "one meticulous," (meticulous in plowing and harrowing the soil) and "two early," (stamp the rice straws early and prepare the soil early) so to ensure that double cropping rice can grow well during the early period. As to the quality of summer ploughing, the soil must be "sodden, level, deep, and without weeds" to stimulate double cropping late rice to return green early, to root early, and to tiller early. Appropriately, deep tilling can enlarge the nutritive area of the roots. "We should plough deeper, place soil markers deeper, so that the cooler soil layers will cause late rice seedlings to return green early." Leveling the fields facilitates management of the water layer, and the seedlings will grow in balance. There will not be any weeds and this hastens the growth of seedlings.

II. In the use of fertilizers, we should lightly apply base manure and grasp sidedressing in a key way. The amount of base manure varies according to the texture of the soil and the forecrop. Ricefields that produce high yields of early rice, ricefields planted with geng rice as the main crop, sandy fields that originally had a poor soil texture, and infertile fields should generally have 15 dan of human excrement or 1,500 jin of green manure applied. This should be applied before overturning and tilling the soil. Base manure should mainly guarantee the amount of fertilizer needed for normal growth of late rice seedlings during the more than 20 days after transplanting. Therefore, the amount of fertilizer applied should not be too much and too strong. During the hot summer when temperatures are high, fertilizers decompose quickly. Too much base manure will easily cause uncontrolled growth during the early period. While controlling the seedling growth in its early stage so that growth is normal, we should emphasize the technique of topdressing on the basis of light application of base manure. Topdressing should be done by observing the color of the seedling and the way it grows to promote the "two

yellowing and two darkening." Generally, topdressings are applied two to three times. The first application should be supplemented with tillering fertilizers according to the situation and they should be applied within 15 days after transplanting. If we expect that the rows will be closed within 1 month after transplanting, and if the color of the seedlings is dark green, then we do not apply tillering fertilizers. Conversely, if the color of the leaves is light, if tillering is slow, if the stems are thin and the leaves are narrow, we should immediately apply effective fertilizers to stimulate early development during the early growth period and the formation of a sufficient number of panicles. After the rows close, we should combine efforts with baking the fields so that the rice plants will begin to recede in color to yellow (beginning about 35 days after transplanting). This is called the first "yellowing." It will last for 15 to 20 days. At this time, irrigation is mainly used to coordinate the growth of the rice plants so that the plants will become thick, strong and erect, leaf sheaths will expand, and the leaves will be able to stand erect and grow thick. The color of the leaves should be light green, what farmers call "bare head, thick branches, uncluttered." Such rice plants are indicators of bumper harvests and plants that will not lodge. Panicle fertilizers can be applied heavily. If the plants grow tall and the leaves grow overly long and droop, if the green color of the leaves does not recede, if the cavity of the leaf sheath is large, if unstable roots emerge at the joints of the stems, if the rice plants sway, then too much fertilizer has been applied and too much water has been irrigated. We should drain the water in time and control the growth by baking the fields repeatedly and severely. If the tip of the leaf is yellow, if the color of the leaf is not uniform, if "the yellow lacks green," they are manifestations of fertilization deficiency. If this kind of appearance of growth of the seedling occurs more than 30 days after transplanting, a small amount of ammonium sulphate can be applied (8 to 10 jin per mu). If such manifestations occur more than 40 days after transplanting, panicle fertilizers can be applied earlier to remedy the situation. The appropriate time to apply the second round of sidedressing for the panicles is when the flower buds on the main stem differentiate. Organic fertilizers with a full range of nutritive elements would be the best. The application of fertilizers for panicles is determined by the strength of the plant, the number of seedlings, and the situation in baking the field. Generally, 20 to 30 dan of human excrement or 15 to 20 jin of urea are applied to reach the second "darkening" and to stimulate large panicles, more grains and full grains. The third application of fertilizers is to strengthen the end period. Actually it is relay fertilization for panicles. Generally 8 to 10 jin of immediately effective ammonium sulphate is applied per mu during the panicle bearing period. After applying such fertilizers, the field should be lightly baked 3 days before heading so that after heading, the plants will undergo the second "yellowing." If "yellowing" occurs too early, the panicles will be small. If it is too late, there will be many unfilled grains and high yields are not possible. In regions lacking fertilizers, we can use topdressing on the outside of the roots during the stage from panicle bearing to heading by spraying 0.3 to 0.4 percent of urea and potassium dihydrogen phosphate. This can also prevent early withering and stimulate full fruiting.

III. To irrigate and dry the field at the proper time so to prevent lodging, strengthen disease resistance and the ability to resist cold, we must observe the color of the seedling, observe the field condition, observe weather conditions and fertilization and grasp the principle of: "shallow, fallow, baking, and alternately drying and moistening." Because the hot summer season immediately follows transplanting and because the temperature is high, therefore a water layer of 1.5 to 2 cun should be irrigated before the plants return green so that the root of the rice plant could be cooled, and thus, stimulate the plant to green early and to develop the root early. During the period following greening to the peak tillering time, a shallow layer of water of less than 1 cun should be maintained to stimulate tillering and reach "darkening." After the peak tillering period, the plants should be allowed to dry naturally. The field can be left fallow early so that the soil layer will firm up and the sides of the fields can be left to crack slightly to prevent late rice from growing too tall. This will continue to stimulate tillering. The field should be baked once again before young panicle differentiation to stimulate "yellowing." During the panicle bearing period, the field should be kept moist by irrigation. During the milky ripe stage, the field should alternately be dried and moistened to stimulate the seed grains to become full and to prevent lodging and damage by disease.

9296

CSO: 4007/590

EARLY CROP BUMPER HARVEST REPORTED IN HUIYANG PREFECTURE

Guangzhou NANFANG RIBAO in Chinese 24 Aug 82 p 1

[Article: "All-around Bumper Harvest From Early Crop in Huiyang Prefecture; Early Rice Yields Break 500 Jin Per Mu, and Total Output Up by 260 Million Jin Over Same Period Last Year"]

[Text] Huiyang Prefecture had an all-around bumper harvest from its early crop this year. Despite a readjustment of crop patterns for the early rice crop throughout the prefecture with a more than 60,000 mu contraction of the growing area, total output was up by 260 million mu over the same period last year for a 14.3 percent increase. Yields were 506 jin per mu, breaking the 500 jin mark for the first time and increasing by 72 jin per mu over those of the same period last year. Following many consecutive years of increased output, output of soybeans, and peanuts, two staple economic crops, increased by 24.6 and 4.4 percent respectively over the same period last year.

Last winter Huiyang Prefecture convened a three tier prefecture, county, and commune cadre conference, which proceeded from a foundation of full investigation and study to put forward a call for new breakthroughs in the agricultural economy within a period of 3 years or so, and mobilization of the broad masses of cadres and people for vigorous development of commodity production. For more than half a year, all jurisdictions in the prefecture have done a solid job in doing a large amount of work, which has laid a foundation for achieving an all-around bumper harvest in agricultural production from the early crop. The prefecture transferred more than 5,000 county and commune cadres to the countryside in one group after another to help production brigades and production teams reorganize and perfect leadership teams, and to further improve various forms of production responsibility systems. From prefecture to counties, everybody diligently summarized the lessons of serious decline in early rice crop output in some places last year, genuinely strengthened leadership of agricultural production, and also energetically promoted experiences in scientific farming. All government organizations and departments in the prefecture, in counties, and in communes took vigorous action to help communes and brigades develop economic diversification. In this way, they promoted development of farming, forestry, sideline occupations, and

series.

7432
CSO: 0007/594

GENERAL IMPROVEMENT IN ECONOMIC CROP PRODUCTION REPORTED

Guangzhou NANFANG RIBAO in Chinese 24 Aug 82 p 1

[Article: "New Situation of All-Around Development of Economic Crops Takes Place in Province; Substantial Increases in Output of Sugarcane, Peanuts, Soybeans, Oil-bearing Crops, Fruits, and Tea"]

[Text] During the past 3 years rural villages everywhere in the province have readjusted the internal structure of their agriculture and their farm crop patterns for a new situation of all-around development of economic crop production. A comparison of 1981 with 1978 shows an increase of about 50 percent in output of sugarcane, peanuts, and soybeans, a 60 percent increase in oil-bearing crops, and a 30 and 20 percent respective increase in output of fruits and tea. Speed of growth of these economic crops has been unprecedented. During the first half of this year, output of economic crops such as peanuts, soybeans, tobacco, and tea was greater than during the same period last year, with peanut, soybean, and spring tea outputs exceeding all-time highs.

Since the Third Plenary Session of the 11th Party Central Committee, even while ensuring continued growth of total grain output and fulfillment of state procurement quotas, all jurisdictions in the province have adapted general methods to local situations, have played up strengths and played down weaknesses consistent with local natural resources and economic characteristics, have selected the best for development, and have actively and steadily readjusted the internal structure of their agriculture and agricultural crop patterns. A comparison of 1981 with 1978 shows a more than 151,000 mu increase in the sugarcane growing area, a 900,000 mu increase in the peanut growing area, a 380,000 mu increase in the soybean growing area, a more than 20,000 mu increase in the tea growing area, and a 56,000 mu increase in the silkworm mulberry growing area. Fairly substantial growth has also taken place in the area devoted to the growing of tropical crops and native specialties, to vegetables, and to flowers.

In recent years all jurisdictions have conscientiously implemented the party's economic policies, and have generally raised procurement prices for agricultural sideline products. They have also supported peasant development of economic crops with production funds, the means of production, and technical forces. Agricultural departments at all levels have promoted superior varieties and advanced techniques, thereby increasing yields per unit of area of

economic crops year by year. Average yields of sugarcane rose from less than 3 tons per mu in 1978 to 4.15 tons last year. In 1978 only Shantou Prefecture had peanut yields averaging more than 200 jin per mu, but last year the number increased to four.

Accompanying readjustment of the internal structure of agriculture and development of economic crops has been a year by year increase in the commodity rate of agricultural products. Industrial raw materials provided to the country have increased year by year, and this has both enlivened urban and rural markets and strengthened the collective economy as well as improved the peasants' livelihood.

1987

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GUIZHOU

BRIEFS

PREFECTURE'S PIG BREEDING--According to GUIZHOU RIBAO, the statistics completed at the end of June this year by the Bureau of Animal Husbandry of the Qianxinan Autonomous Prefecture of Bouyei and Miao nationalities show that this prefecture has more than 612,500 pigs, an increase of 14.6 percent as compared with the same period last year, and an increase of 21 percent as compared with the same period in 1980. The agricultural production responsibility system has greatly mobilized the peasants' enthusiasm for promoting production over the past 2 years and more. [Guiyang Guizhou Provincial Service in Mandarin 2315 GMT 5 Oct 82]

CSO: 4007/10

BRIEFS

SONGHUAIJIANG DIVERSIFIED ECONOMY DEVELOPS--HEILONGJIANG RIBAO on 3 October carried a report on Songhua Jiang Prefecture accelerating the development of a diversified economy. The report states: Despite an unavoidable reduction in grain output because of serious drought, the average per capita income of commune members in Songhua Jiang Prefecture will still be close to that of last year thanks to rapid development in the diversified economy. As of the end of August, the total income from the diversified economy in this prefecture had reached 266.07 million yuan, showing an increase of 35.1 percent over the same period last year. The number of specialized contracted households, and specialized and key households engaged in planting and breeding in this prefecture now accounts for some 10 percent of the total number of peasant households. Other rapidly developing localities such as Hulan and Bin counties have some 30 percent of their peasant households engaged in planting and breeding undertakings. This prefecture, on the basis of conducting natural resources survey and agricultural zoning, has universally formulated production plans for the diversified economy. HEILONGJIANG RIBAO also frontpaged an editorial entitled: "Diversified Economy Should Be Placed High on the Agenda of Leadership." [Text] [SK030712 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 2 Oct 82]

AUTUMN HARVEST--Autumn-harvested crops are ripening in Heilongjiang Province. The 22 counties in the southern and eastern parts of the province have harvested 200,000 mu of miscellaneous grains and minor oil-bearing crops. By 9 September, the province had plowed 25.4 million mu of wheatfields, 88 percent of the wheatfields to be plowed. [SK162326 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 12 Sep 82]

SUGAR BEET PROCUREMENT--On 10 September, Heilongjiang Province held a telephone meeting on the sugar beet harvest. At the meeting, Hou Jie, secretary of the provincial CPC Committee and deputy governor, stressed that all localities throughout the province should do a good job in sugar beet procurement. According to investigations, this year's sugar beets are growing well. The estimated output of sugar beets this year can reach over 3 million tons and the sugar production rate tops the all-time peak. The meeting urged all localities to complete the procurement task basically by January in 1983. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 14 Sep 82]

CSO: 4007/10

RADIO COMMENTARY ON NEED FOR WATER CONSERVATION WORK

HK041202 Zhengzhou Henan Provincial Service in Mandarin 1130 GMT 30 Sep 82

[Station commentary: "Enhance Vigor and Develop a New Situation in Water Conservation Work"]

[Text] In his report to the 12th CPC National Congress, Comrade Hu Yaobang pointed out: In the 20 years from 1981 to the end of this century, the general goal of endeavor for our economic construction is, on the basis of continuously increasing economic results, to quadruple our total annual output value. In order to achieve this magnificent goal, all people must make joint efforts and solidly do their work. In agriculture, making a success of irrigation and water conservation work and improving agricultural production conditions can provide a strong basis for the implementation of this strategic goal.

In order to create a new situation in water conservation work, it is necessary to vigorously promote the two changes in the guidance of agricultural production. That means it is necessary to change from purely promoting grain production to promoting diversification and to change from purely promoting the basic construction of the rural areas to vigorously promoting water conservation work and improving large-scale ground cover. The key to creating a new situation in water conservation work is to lead and promote the recognition of the important significance of making water conservation work a success. Agriculture is the foundation of our national economy. As long as agriculture is well developed, there will not be many difficulties in other undertakings. Thus, to solve well the agricultural problems is the strategic focus of the development of a socialist economy.

Water conservation work is the lifeline of agriculture and the blood of industry. If water conservation work is well done, it is possible to promote the development of agricultural production. In our province, there are droughts every year, but the output of our products increases every year. This fact fully illustrates the problem. In 1981, the total grain output of the entire province was 46.2 billion jin. It was the highest figure ever recorded in the history of the province. This is the fifth of 5 consecutive years in which there have been droughts. The total summer grain output this year is 22.7 billion jin. Compared with the total summer grain output of last year, this shows an increase of 470 million jin. In August this year, there were floods and torrential rain and the usefulness of the water conservation works was clearly

seen in the struggles against the floods. One can imagine that without water conservation work acting as our backup force, it would be quite impossible to have a good harvest when there are droughts and floods.

To develop a new situation in water conservation work depends on the masses. They must rely on their own efforts, work hard and strive regardless of hardships to make the starting point of water conservation work a success.

Our province is rich in manpower. It is necessary to pay attention to the accumulation of labor. In the rural areas, we should utilize the rich manpower and suit our measures to local conditions when we carry out construction of water conservancy work. This is something we can certainly achieve. As long as the leadership is strengthened, the policies correct, the organizational work good and we start from the current interests of the masses, the masses will be willing to invest their surplus labor and idle capital in water conservation work which is quick in producing effects. The masses provide efforts and they enjoy the benefits.

This is not equalitarianism or an indiscriminate transfer of labour nor will it stir up a communist wind. It is a reasonable burden and the normal accumulation of labor. The view that the burden of water conservation work is to be born by a few families is incorrect.

Comrades on the water conservation work front, your tasks in the new historical situation are difficult but glorious. Enhance your vigor. Strive regardless of hardship. Contribute your efforts to create a new situation in water conservation work.

CSO: 4007/10

PROVINCE HOLDS CONFERENCE ON WATER CONSERVANCY

HK040613 Zhengzhou Henan Provincial Service in Mandarin 1130 GMT 30 Sep 82

[Text] The Henan Provincial Government held a conference on water conservancy from 21-27 September. The conference conscientiously studied the documents of the 12th CPC Congress and reviewed and summed up the experiences and lessons of water conservancy work in Henan Province since the third plenary session of the 11th CPC Central Committee. Comrade Hu Yaobang's instructions on grasping the two transformations in guiding agriculture production refer to the transformation from grasping only the production of grain to simultaneously grasping the diversified economy and grain and also the transformation from grasping only the construction of farmland water conservancy to vigorously grasping the conservancy of water and soil and improving vegetation. In accordance with these instructions and integrating with the actual condition of Henan Province, the conference discussed and worked out the principles, tasks and key points of water conservancy in the new historical period. The conference also arranged the work of water conservancy and conservancy of water and soil for this winter and next spring and put forward the long-term plan for the work of water conservancy in Henan Province.

The conference considered Comrade Hu Yaobang's instructions as a direction pointing out for the province how to further grasp water conservancy work well. In 30 years, Henan has achieved marked results in the work of water conservancy, particularly since the third plenary session of the 11th CPC Central Committee. After eliminating the influence of the ideas of "leftist" deviationists and through the readjustment and restructuring of water conservancy construction, the province has made the most of water conservancy works. But, due to the area that guarantees yield in spite of drought or flood being only one-third of the total cultivated land, the task of transforming the aspect of the mountainous region and preventing soil erosion is still arduous. Therefore, implementing and putting into practice the instructions for the two transformations, earnestly grasping water conservancy of farmland and setting up a good ecological environment is the only way for developing agriculture and improving geographical features.

The conference established the water conservancy tasks for 1983, namely that, the whole province will extend the area of 800,000 mu of irrigated land, improve 1 million mu of irrigated land, develop 1 million mu of complete set drainage

system and bring under control 10,000 square km of soil erosion. In accomplishing these tasks, the conference emphasized the unswerving grasp of capital construction of water conservancy for this winter and next spring, the strengthening of the work of water and soil conservancy in mountainous region, the instituting of the responsibility system on water conservancy management and making efforts to raise the scientific level in management. The conference expected that by 1983, one-third of the water conservancy projects of Henan Province will reach the advanced economic and technological target and also lose no time to repair the projects damaged by floods.

Governor Cui Guanghua attended the conference and made a speech.

CSO: 4007/10

PROVINCE FOCUSES ON PISCICULTURE IN SMALL BODIES OF WATER

Beijing RENMIN RIBAO in Chinese 10 Jun 82 p 2

[Article: "Persisting in Making Primary the Breeding of Fish for High Output in Small Bodies of Water"]

[Text] Hunan Province's freshwater production has been switched from laying stress on large concentrated bodies of water to making primary the breeding of fish for high output in small bodies of water, and fairly good results have been achieved in this respect. In the past 3 years, the province's total amount of aquatic products has continually increased: in 1981, it reached 3,569,000 dan, 1,199,000 dan more than in 1978, or a yearly average rate of increase in the 3 years of 14.6 percent.

Hunan Province has over 20 million mu of water surface, of which about 5 million mu can be used for pisciculture, and ponds and small lakes and reservoirs occupy 60 percent of the 5 million mu. These bodies of water are basically within the limits of one village or one production team. They are easy to manage, and in particular pond pisciculture possesses the characteristics of requiring little work, being low in cost, seeing fast results, and obtaining large benefits. However, because of the former stress on large concentrated bodies of water, a tight grip had not been gotten on the small, relatively dispersed bodies of water, with the result that there have not been marked successes and output has always fluctuated at about 2 million dan. After the 3d Plenary Session of the 11th CCP Central Committee, the province switched the focus of freshwater breeding to making primary the breeding for high output on small bodies of water while giving consideration to other bodies of water, and output rose greatly in successive years. In 1979, total output increased 410,000 dan over that of 1978, of which the output increase of ponds was 250,000 dan. In 1980 there was a drop in output of the fish catch in lakes, but there was a 460,000-dan output increase in pond pisciculture, and total output was still 400,000 dan more than in 1979. In 1981, total output increased by 389,000 dan over that of the previous year, of which pond output increased by 294,000 dan.

In persisting in its work of making primary the breeding for high output in small bodies of water, Hunan Province has mainly engaged in work in the following three aspects: 1. It has focused on getting a good grip on pond pisciculture in 22 key counties in hilly areas. At the same time that it has

universally put into practice the production responsibility system, it has integrated this with farmland ponds. Compared with 1978, last year fish were bred on an additional 140,000 of hilly ponds in the 22 key counties, and the output of fresh fish rose from 846,000 dan to 1.54 million dan and the per mu output from 61 jin to 101 jin. 2. A good grip was gotten on the construction of commodity fish bases in the lake districts. Hunan Province has 120,000 mu of lakes. In the past there was blind construction of farmland surrounding lakes, which led to extremely large losses in fishery production. After 1979, with the support of the state, the province in a planned way transformed shallow lakes, low-lying land, and unstable-yield fields around lakes in the lake districts, of which 103,000 mu were put into operation last year and had an average per mu output of 143 jin. 3. The province has vigorously developed pisciculture in the five cities under provincial administration: Changsha, Hengyang, Xiangtang, Shaoyang, and Zhuzhou.

By persisting in making primary the breeding of fish for high output on small bodies of water, Hunan Province has provided suitable arrangements for surplus labor power in the rural areas. In Yuanjiang County, the establishment of commodity fish bases and the lively development of commune and production team pisciculture as well as pisciculture of commune member families have given over 2,700 persons in the county an outlet for their labor power by engaging in the fish-catching speciality.

0727

CSG: 0017/370

SUZHOU PREFECTURE ENCOUNTERS PROBLEMS IN GRAIN PRODUCTION

Beijing ZHONGGUO NONGMIN BAO in Chinese 4 Jul 82 p 1

[Article in "Work Study" column: "Look at the New Situation and New Problems in Grain Production"]

[Text] Suzhou Prefecture in Jiangsu is one of the principle commodity production bases in our country for paddy rice. In the 1970's the annual average amount of commodity grain supplied by the prefecture was 2.35 billion jin. Here, the cultivated area only occupies 9 percent of the province's cultivated area, but the grain production accounts for 17 percent of the province's grain production, and the quantity of state purchases accounts for 21 percent of the province's state purchases. From this it can be seen that it is absolutely necessary to maintain this prefecture's superiority in grain production.

Since the 3d Plenary Session of the 11th CCP Central Committee, there has been a very big change in the agricultural production structure of Suzhou Prefecture. The characteristics at the basic level are: 1) the proportion devoted to sowing crops has gradually fallen, and agriculture's total output value is 30 percent below the national average. 2) The proportion of industry and sideline occupations (mainly commune and production team industry) is fairly high, forming a situation in which industry and sideline occupations nourish agriculture. In 1980, only 32 percent of the total labor force was engaged in industry and sideline occupations, but its output value accounted for 70 percent of the total output value; in that year, 70 percent of the income distributed to people in the prefecture came from industry and sideline occupations. In 1980, the funds provided by commune and production team industry were equal to 1.2 times the state's total investment in the prefecture's agriculture. In addition, this industry has undertaken the production of medium-sized and small agricultural implements and of water conservancy equipment and has trained a large batch of agricultural machinery technicians, thereby playing a role in promoting agricultural modernization. 3) Animal husbandry and fishery have been developed to different degrees.

The changes in the agricultural production structure of Suzhou Prefecture have been rational. Its agricultural economy is now switching from a self-sufficient single structure to a comprehensive economic structure of a commodity nature. However, in the process of readjusting this prefecture's agricultural production structure, new situations and problems have emerged: 1) There has

been a sharp rise in the area sown to economic crops and a sharp decline in the area sown to grain crops, and the proportion taken by the triple-cropping system is becoming smaller and smaller. With regard to the sown area, comparing 1981 to 1976, economic crops increased by 29.9 percent and grain decreased by 11.9 percent. Grain output and commodity grain have decreased. 2) With regard to the application of fertilizer, in 1981 compared with 1979, the amount of chemical fertilizer used per mu increased by 1.7 times and the green fertilizer area decreased by 39 percent, causing the soil fertility and the yield per unit area to decrease by 26 percent and the cost of grain production to rise steeply. 3) The trend on the part of people to leave agriculture has become serious, the backbone labor force cannot engage in agriculture, the cadres of communes and production teams put their main energy in industry and sideline occupations, and the work of agricultural science and technology cannot be developed very well. 4) The commune members' grain ration and amount of fodder have decreased, and in 1981 the amount of feed for pigs was 25 percent lower than in 1979.

These problems were created by the following causes: disastrous weather; after the triple-cropping system was changed to the double-cropping system, the single-cropping rice lacked high-yield varieties, thus restricting the rise in output; and some communes and production teams, attaching importance to industry and sideline occupations, which have big output values and earn a lot of profit, blindly expanded the planting of cotton, edible oil, hemp, tobacco, and other economic crops, thereby dealing a blow to normal grain production.

9/27

CSO: 4007/470

JIANGXI

BRIEFS

CATTLE RAISING--Nanchang, 26 Sep (XINHUA)--Jiangxi's Guangfeng County has used its vast grassy mountain land to develop cattle raising. The breed raised can be used as beef cattle as well as for draft animals. Statistics by July 1987 showed that the county had some 26,000 head of such cattle, or 16 percent more than the number in 1978. In the last 3 years some 6,000 head were sold to other counties. [Beijing XINHUA Domestic Service in Chinese 0103 (MT 26 Sep 82)]

CSO: 4007/10

PROVINCE ATTENDS TO EDUCATION FOR PEASANTS

SK060908 Changchun Jilin Provincial Service in Mandarin 1100 GMT 5 Oct 82

[Text] Since the third plenum of the 11th CPC Central Committee, our province has rapidly resumed and developed the educational activities for peasants and has scored gratifying achievements. Since the third plenum, the provincial CPC Committee and government have paid great attention to educational undertakings for peasants. The provincial educational department has regarded peasant education as an important component of the whole of educational work, reinforced the administrative organs, built a full-time contingent composed of 2,300 persons throughout the province to take charge of education for peasants, mobilized some 200,000 persons to take part in activities on wiping out illiteracy and appropriated a special fund totalling 9 million yuan for carrying out education for peasants. The province has established 26,560 evening schools for peasants in various localities, organized some 14,500 household study groups and formed 15,869 teams contracted for teaching. After 3 years of hard work, the province has now completed the task of wiping out illiteracy among juveniles, youths and persons in the prime of life in 42 counties and cities throughout the province. At present, some 960,000 persons in the province have freed themselves from illiteracy, enabling the province's rate of illiteracy to decline to less than 4 percent.

In the course of carrying out work on wiping out illiteracy, all localities have extensively conducted technological education for peasants. As of now, the province as a whole has run 5,911 part-time primary schools, 336 part-time middle schools and 4,827 peasant technical schools and part-time technical study classes. Some 210,000 peasants have participated in a more systematic cultural and technical study. Through consolidation, some 14 counties and districts in the province have redesignated the original "7 May" universities to peasant technical schools or technical vocational schools with 2,050 students.

In the past 3 years, through wiping out illiteracy and conducting technological education for peasants, the cultural, science and technological standards of the broad masses of peasants have attained a certain level, helping to promote the development of farm mechanization in our province. Some localities have summed up experience in the course of carrying out this work. Advanced collectives and individuals who have paid attention to and cherished the peasant educational work have emerged in large numbers.

To promote deep development of our province's peasant educational work, the provincial educational department held a meeting to commend advanced collectives and individuals distinguished in the peasant educational work in Changchun on 4-5 October. Leading comrades of the provincial CPC Committee and government presented certificates of merit and gifts to 176 advanced collectives and 424 advanced individuals.

Cao: 0007/10

LIAONING

BRIEFS

CHANGTU COUNTY GRAIN PRODUCTION--In 1981, Changtu County in Liaoning reaped 1.92 billion jin of grain and sold 1.1 billion jin of marketable grain to the state, increasing by 36.4 and 74.5 percent, respectively, over those of 1978. Peasants' income was increased to 180 yuan per capita in 1981, 95.8 percent higher than in 1978. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 2 Oct 82]

WINTER WHEAT--In 1982, Jin County in Liaoning Province planted 68,000 mu of winter wheat. Despite drought, the county saw a 6 percent increase in the average per-mu yield as compared with 1981. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 15 Sep 82]

CSO: 4007/10

NEI MONGGOL

BRIEFS

ANIMAL HUSBANDRY PRODUCTION--By late September, there were 496,000 labor forces throughout Nei Monggol Autonomous Region to engage in mowing fodder grass. They mowed 3,805.55 million jins of grass, a 320 million jin increase over the figure of the corresponding 1981 period. Meanwhile, the region completed the breeding work among over 405,000 draft animals, a 255,000 head increase over the figure of the corresponding 1981 period, and among 2,522,000 herd animals, a 206,000 head increase over the figure of the corresponding 1981 period. [SK060028 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 4 Oct 82]

WUYUAN COUNTY GRAIN--Thanks to the responsibility system, Wuyuan County in Nei Monggol has fulfilled its agricultural economic target set for 1985 3 years ahead of schedule. Ninety percent of the county's production teams began to institute responsibility system in 1980 and great progress has been made during the past 3 years. The county's grain output has increased 100 million jin, 80 percent more than 3 years ago, gross agricultural output value has increased from 24 million yuan to 70 million yuan and per capita income has increased 245 yuan, quadrupling the figure of 3 years ago. [Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT 1 Oct 82]

CSO: 4007/10

'QINGHAI RIBAO' ARTICLE ON PROTECTION OF NATURAL RESOURCES

HK131201 Xining Qinghai Provincial Service in Mandarin 1100 GMT 11 Oct 82

[QINGHAI RIBAO 11 October article by (Qi Lingfeng): "Suggestions on the Protection of Vegetation and Natural Resources"]

[Text] The article says: There is naturally little vegetation in all counties in the agricultural areas of Qinghai Province, particularly in the (Qianshan) area, which is dry and suffers from many natural disasters. However, the phenomenon of the destruction of vegetation is very serious, resulting in a vicious circle of unsuccessful agricultural production. People lack [words indistinct] and livestock lacks grass. There is a great contradiction between the needs of people and livestock for grass [words indistinct]. In many places people have gone further and further afield to fell trees for firewood. According to statistics from Ledu County, due to tree felling, about 150,000 mu of vegetation area is destroyed each year. Some 230,000 households of commune members in mountainous areas throughout the province fell about 750 million jin of trees each year as fuel. In addition, livestock grazes indiscriminately. Some places do not have grass growing at all.

The article points out: At present, it is necessary to stress the following several points:

1. We must regard the cultivation of trees and grass as an important measure. While vigorously grasping the task of afforestation, we must lay special stress on the protection of the existing vegetation and attach importance to cultivation and management simultaneously.
2. We must improve vegetation and adhere to the principle of combining herbs, shrubs and trees. In places which are dry and lack irrigation, we must first grow shrubs and herbs to increase vegetation. After the moisture content of the soil is increased, we must then cultivate trees.
3. We must further study the issue of the contradiction between the development of livestock in [words indistinct] and pastures. The number of livestock in [words indistinct] is some 1.8 million head, 17 percent more than before the third plenary session of the 11th CPC Central Committee. Due to the limited number of pastures, livestock grazes indiscriminately. This is not beneficial to afforestation and grass growth in barren mountains. I think that the

development of livestock is good but it is necessary to adopt various methods of management. We must mainly grow grass to solve the problem of fodder.

4. We must be determined to solve the fuel problem of peasants in mountainous areas. Otherwise, afforestation work is merely empty talk.

In dealing with the protection of natural resources in Qinghaihu Lake [words indistinct], (Qi Lingfeng) says: Yellow croakers in Qinghaihu Lake and birds on Niaodao Island have been sabotaged greatly over recent years. To balance the breeding and catching of yellow croakers, some 4,500 tons of yellow croakers can be caught each year. However, the amount of yellow croakers caught each year exceeds the planned quota by 53 percent. Some people have caught a large amount of [words indistinct] and small fish in legal and prohibited fishing areas. The source of yellow croakers has been sabotaged even more seriously.

The provincial Aquatic Product Bureau and Forestry Bureau have respectively put forth preliminary programs on the issue of the protection of resources in the Qinghaihu Lake. The current tasks are: First, to promptly examine and implement the main issues concerning organs, investments and measures. Second, to conduct publicity and education among the masses and at the same time, take even stricter administrative measures to intervene, and take economic measures to curb sabotage. Third, to make a unified plan to exercise complete protection and comprehensive control.

In conclusion, the article by (Qi Lingfeng) says: At present, the sand problem around the (Luyangxia) is becoming increasingly serious. The sandy areas around the (Luyangxia) reservoir make up 1.27 million mu. The areas of drift sand near the reservoir constitute some 160,000 mu. According to investigations, 50 million tons of drift sand goes into the reservoir each year. Drift sand from all directions has constituted a great threat to the power station project and the reservoir area. The building of shelter-forest in the area of the (Luyangxia) reservoir is an urgent task and a project of vital and lasting importance. I suggest that at the appropriate time, it is necessary to hold a conference on sand control, to look particularly into the issue of sand control in the area of the (Luyangxia) reservoir and the area of the (Huanhu) Lake.

000: 3007/10

SHAANXI

BRIEFS

AGRO-SCIENCE CENTER--Xian, 23 Sep (XINHUA)--The 2,600 scientists and technicians working at Wugong Agro-Science Research Center in Shaanxi Province have won 134 awards for the research work they have carried out since the third plenary session of the 11th CPC Central Committee. The center has conducted 74 major research projects and trained more than 3,300 agricultural technicians. One of the research results that have been successfully applied is scientific sericulture. In the last 3 years the acreage of the mulberry tree farms in the province has expanded by 380,000 mu, and annual silkworm cocoon production has increased from some 40,000 to some 60,000 dan. Other achievements include popularization of a fine breed of milk goats and the breeding of earthworms as chicken feed. [Beijing XINHUA Domestic Service in Chinese 0128 GMT 23 Sep 82]

CSO: 4007/10

DEPUTY GOVERNOR ON AGRICULTURAL DEVELOPMENT

SKD20958 Jinan Shandong Provincial Service in Mandarin 2300 GMT 1 Oct 82

[Text] According to our sources, Zhu Qimin, deputy governor of the province, recently was interviewed by our reporter on accelerating the province's agricultural development and making contributions to creating a new situation in all fields of socialist modernization.

Comrade Zhu Qimin said: In his report made at the 12th CPC National Congress, Comrade Hu Yaobang definitely pointed out that the magnificent object in creating a new situation in all fields of socialist modernization was to quadruple the annual industrial and agricultural output value by the end of this century. This is a most heartening thing.

Agriculture is the important strategic point of China's economic construction. Comrade Zhu Qimin said: To fulfill the fighting object set forth by the 12th CPC National Congress, our province must increase the agricultural output at an average rate of 5 percent or more every year. By so doing, the province's agricultural situation will change considerably, peasants' income will double and redouble and peasants' material and cultural livelihood will reach a new level by the end of this century.

Comrade Zhu Qimin said: To fulfill the abovementioned object, we have many favorable conditions. They are:

1. We have had both positive and negative experiences. In the past 33 years since the founding of the PRC, we have taken a roundabout course in our work. But the provincial agricultural output still increased at an average rate of 4.6 percent a year. Now under the correct leadership of the CPC Central Committee, it is completely possible for us to increase the agricultural output at an average rate of 5 percent or more every year.

2. Thanks to the institution of various forms of the responsibility system, the initiative of the masses has been fully mobilized. At present, 99.8 percent of all production teams in our province have instituted various forms of the responsibility system in production. Of them, 71 percent have implemented the system of fixing output quotas based on households and the system of peasant households assuming full responsibility for task completion. Various forms of the responsibility system have greatly promoted production. From now on, so

long as we further sum up and perfect the responsibility system in agricultural production, pay attention to weak links and develop agriculture, forestry, animal husbandry, sideline production, fishery, industry and commerce in an all-round way, agricultural output will increase progressively.

3. Agricultural capital construction has developed greatly and production conditions have changed noticeably. Now the province has over 60 million mu of irrigated land and over 20 million horsepower of agricultural machinery. On an average, 100 jin of chemical fertilizer are applied to each mu of farmland. In future, if we increase the acreage of irrigated land by some 2 million mu each year and improve other production conditions, the fulfillment of agricultural objectives will be guaranteed.

4. Agricultural scientific technology has developed remarkably. Since the third plenary session of the 11th CPC Central Committee, the province has scored 539 achievements in agricultural scientific technology, and many of them have played an important role in agricultural production. For instance, noticeable achievements have been scored in developing improved varieties of wheat, corn, cotton and peanut by selection and in cultivation of high-yield varieties of crops. In the future, we should accelerate the popularization of scientific research achievements in agricultural technology and strive to twice change the improved varieties of crops over the next 20 years.

5. We still have great potential to develop a diversified economy. We should develop the range and quality of the diversified economy. Now the income from forestry, animal husbandry, sideline production and fisheries only accounts for some 30 percent of the total agricultural income. In particular, the economy developed by individual peasants still makes up a small part of the total income from agriculture. In the future, so long as we vigorously develop the diversified economy and encourage the peasants to develop the individual-run economy within the limits permitted by policies, the potential in this regard will be very great. We should strive to enable our province's output value in forestry, animal husbandry, sideline occupations and fisheries to make up some 60 percent of the total agricultural output value by the end of this century.

Comrade Zhu Qimin said: Generally speaking, the rate of agricultural development will not be as rapid as that of industry because agricultural development will be more affected by natural conditions. We must proceed from the reality and formulate a feasible fighting goal. We should also solve the problem by understanding of agriculture. Comrade Hu Yaobang pointed out that agriculture is the foundation of the national economy. So long as we achieve success in agriculture, other things will be handled more easily. We should conscientiously understand this guideline and strengthen the leadership over and support agriculture in the fields of leadership, policies, [words indistinct] and goods and materials so as to develop agriculture at a still faster speed. So long as we work hard and advance in line with the guidance of the 12th CPC National Congress, our province's agriculture will certainly develop at a faster speed and our province will certainly make contributions to creating a new situation in all fields of socialist modernization.

PROVINCIAL NOTICE ON FALL WHEAT PLANTING SUPPORTED

Jinan DAZHONG RIBAO in Chinese 19 Jul 82 p 1

[Article: "Keep at Heart the Overall Situation to Plant Wheat Well and in Sufficient Quantity"]

[Text] Recently the provincial government issued notice on doing a good job of fall planting in 1982. Diligent implementation of the spirit of the notice and beginning now to devote genuine attention to all work preparatory to fall planting, with no missing of opportunities to plant a sufficient amount of wheat and plant it well even while devoting efforts to increased agricultural yields from the fall harvest, holds extremely important significance for a substantial increase in the province's grain output for next year, and for promotion of all-around development of agriculture and the entire national economy.

Agriculture constitutes the foundation of the national economy, and grain is the foundation of the foundation. For the more than 70 million population of Shandong Province, food to eat is a matter of prime importance, and solution to the grain problem requires primarily efforts from within the profit itself. Wheat is the province's main grain crop, and the area planted to it over the years has amounted to more than 40 percent of the total grain crop area. Wheat amounts to more than one-third the total grain output, and the quantity purchased by the state amounts to approximately 60 percent of state grain procurement quotas for the year as a whole. In 1979, Shandong province harvested a huge bumper crop of wheat, and total grain output for the year as a whole set an all-time high. Though total wheat output has stabilized at somewhat more than 15 billion jin in recent years, this is not far from the all-time high. It should be particularly realized that in consequence of the continuous great drought, speed of increase in the province's grain production has been relatively slow, and average per capita production is fairly low and unable to meet the grain needs of all. The reduced wheat output occasioned by drought, and the substantial reduction in the area sown to autumn grain has meant an even more prominent contradiction between output and demand for grain. Consequently, we must fully understand the major significance of taking a firm grip on this year's fall planting work to win a bumper wheat harvest next year, and use every available means to achieve a new high in wheat output.

Not only is it necessary to do a good job of fall planting to get a bumper wheat harvest next year, but it is also possible. With the implementation of

various party policies in rural areas following the Third Plenary Session of the 11th Party Central Committee, a responsibility system in which calculation of remuneration is linked to output has been generally instituted for wheat production, which has vigorously aroused the enthusiasm for production of the broad masses of cadres and commune members. As a result of several consecutive years of struggle against drought to protect wheat, all jurisdictions have accumulated abundant experiences in fighting disaster to obtain bumper harvests. The material foundation is better than it had been, and the amount of chemical fertilizer applied to the soil increases year by year. In the four prefectures of western Shandong, in particular, where bumper cotton crops have been harvested during the past several years, the quantity of bean cake and chemical fertilizer has increased several times over, soil fertility has made an obvious turn for the better, and irrigated area has expanded, and in a substantial number of units wheat yields have changed from low to intermediate or high. Crop patterns for wheat varieties have gradually become rational, and the level of scientific farming has steadily increased. If only full advantage is taken of these conditions, and vigorous efforts made to tap potential for increasing wheat yields, new breakthroughs in next year's wheat output are fully realizable.

Determination to plant a sufficient amount of wheat this year is the bases for a bumper wheat crop next year. It is also a major matter bearing on readjustment of crop patterns, and on consolidating and developing the fruits of readjustment. The provincial government has proposed an appropriate expansion of the wheat growing area this year, assuring the planting of more than 55 million mu. This proposal has been made on the basis of the province's current production conditions and the level of agricultural science and technology. Increase in total wheat output requires increase in yields per unit of area. Of this there can be no doubt. However, inasmuch as our current ability to combat disasters is still not strong, there are definite limits on the extent to which yields per unit of area can be increased. So it is necessary to assure steady growth in total grain output, and a sufficiently large wheat growing area has to be maintained. Of this there can be no doubt either. In recent years the province has adapted general methods to local situations in the readjustment of crop patterns. It has appropriately expanded the economic crop growing area and cut back on the grain field area. This has played an obvious role in making the most of advantages and increasing economic benefits. However, objectively contradictions genuinely exist in the struggle for land between grain crops and economic crops. Within a limited cultivated land area, it is necessary both to assure the grain field area for steady increase in grain output and to assure development of economic crops. One effective way of doing this is to increase the multiple cropping index as production conditions improve. In order to increase the multiple cropping index in Shandong Province, it is necessary to expand the area sown to wheat, to change some of the area sown to economic crops in spring to sowing in summer, and to change from a single crop each year or three crops every 2 years to two crops each year. Thus, planned expansion of the area sown to wheat requires both development of grain production and assuring development of economic crops. We must conscientiously institute the principle of taking the planned economy as the key link market regulation being supplementary, indoctrinate the broad

... of cadres and people, establish thinking in terms of the situation ... consciously implement state plans, surmount erroneous tendencies ... selfish departmentalist thinking and free planting, and act to do a good job in adjusting cropping, to translate into reality this year's wheat planting area and planting plans.

A solid job of all measures for increasing yields is the major guarantee of a bumper wheat harvest next year. Attention must be devoted to rational crop patterns for varieties, and transfers of superior varieties from surplus to shortage areas, adaptation of general methods on the basis of local conditions, fertilizer, and water, rational selection of superior varieties, and making the most of increased yields from superior varieties. It is necessary to do a good job of readying base fertilizer for fall planting, wide-rangingly arouse the masses, do large-scale accumulation and making of manures of various kinds, and particularly to take advantage of the present season with its rainy and overcast weather and high temperatures to compost more green manure and grass fertilizer, and to use every possible means of applying more organic fertilizer to the soil. In view of the autumn drought that has prevailed over the years, preparations must be made promptly to resist drought, and create soil moisture for planting. The principle of being active and taking account of capabilities should be followed to arouse the masses to build more small water conservancy projects that require little investment, show results fast, and bring large benefits in an effort to enlarge the irrigated area, and to make full use, as well, of reservoirs, dammed ponds, rivers, lakes, and such water conservancy facilities. While assuring safety, every effort should be made to impound more water to create conditions for combating drought and creating soil moisture for planting.

Rural leaders at all levels should begin now to take a firm grip on all the preparatory work necessary for fall planting. They should do things such as further improving wheat production responsibility systems, the better to arouse the enthusiasm of the masses of commune members; make full use of the role of agricultural technical personnel; do a good job of technical training, intensify technical guidance, and promote various forms of farming technique responsibility systems; to proceed from local realities, and while continuing to devote attention to a bumper wheat harvest and bumper wheat fields, to increase measures for increased yields from intermediate and low yield wheat fields in the promotion of balanced increases in yields. Right now the rural situation in Shandong Province is very good, and with the convening of the 12th Central Committee, in particular, the masses are inspired. If only we do a solid job in each aspect of our work, and organize forces in all quarters, we will certainly be able to fulfill fall planting quotas on time and of high quality, to lay a foundation for a bumper wheat harvest next year.

1959
1959: 10-1994

WINTER WATER CONSERVANCY PROJECTS OUTLINED

SK060554 Jinan Shandong Provincial Service in Mandarin 2300 GMT 5 Oct 82

[Excerpts] In the days when the people throughout the country are thoroughly studying and implementing the documents of the 12th CPC Congress, our reporter interviewed Comrade (Zhai Yongguo), director of the provincial Water Conservancy Office, on farmland water conservancy projects to be done in the coming winter and spring.

Comrade (Zhai Yongguo) said: In line with the general objective put forward by Comrade Hu Yaobang, we should successfully work out water conservancy plans for the coming 10 to 20 years on the one hand and, on the other, we should pay attention to immediate interests by successfully carrying out water conservancy projects in the coming winter and spring. We should uphold unified plans and leadership, adhere to the principle of suiting measures to local conditions and doing everything in accordance with our capacity and tackle the problems concerning mountains, rivers, forests, farmland and roads in a comprehensive way with emphasis placed on harnessing rivers and improving economic results, by paying simultaneous attention to broadening the sources of income and cutting expenditures and by combining engineering methods and administrative measures. We should build small-scale water conservancy works that need fewer investments and yield quick and great benefits.

In mountainous and hilly areas, measures should be taken to store water and dig ditches. Where conditions permit, efforts should be made to build small reservoirs and ponds, do a good job in water and soil conservation and dig gullies, mend landslides areas and build blocks at the beginning of ditches to reserve water and block sand. Efforts should also be made to stop reclaiming mountains and plant trees and grass to tackle mountains and rivers in a comprehensive way.

In the plains in the northwestern areas of the province, the work to repair irrigation canals, provide them with all necessary auxiliary works and remove silt should be accelerated. In the meantime, efforts should be made to harness small rivers, improve drainage systems and repair the works damaged by floods.

Comrade (Zhai Yongguo) concluded: As long as we advance along the way indicated by the 12th CPC Congress and mobilize the masses to work hard, we can surely make a success of the water conservancy projects in the coming winter and spring and (make contributions) to creating a new situation for socialist modernization.

CONFERENCE URGES INCREASED ACTION ON MARINE FISHERIES

Jinan DAZHONG RIBAO in Chinese 22 Aug 82 p 1

[Article: "Rely on Science and Technology for Development of Marine Propagation and Breeding Industries; Provincial Seacoast Aquatic Products Production and Scientific and Technical Work Conference Poses New Requirements"]

[Text] "Further good work in planning the 'three combinations' of aquatic products, and hastening development of marine propagation and breeding industries in real action to greet the convening of the 12th Party Central Committee" was the proposal of the Provincial Seacoast Aquatic Products and Scientific and Technical Work Conference recently convened at Qingdao.

The conference believed that despite the very great achievements of the past several years in aquatic product output and scientific and technical work, some problems also exist and the marine breeding industry remains a weak link whose output and output value is very small in proportion to the marine fishing industry as a whole. About 90 percent of the province's coastal shallows suitable for breeding have not been used. In order to solve these problems, the conference called upon all coastal jurisdictions to increase further their understanding of the importance of marine propagation and breeding industries, and to develop rapidly the guiding mentality of the marine fishing industry from "taking catching as the key link" to "taking breeding as the key link" for a new breakthrough in the province's marine fishing industry within 3 to 5 years. Policies should be further liberalized, and rights to water surfaces and shallows, and various forms of production responsibility systems instituted. In addition, a conscientious job should be done in "three combinations" developmental planning, making science and technology better serve the propagation and breeding industries, so that the propagation and breeding industries are better linked to the needs of society. Science commissions and aquatic products bureaus in all jurisdictions should closely coordinate, fulfill with all possible speed their coastal area survey tasks, and work up developmental plans for propagation and breeding industries in ponds, shallows and benches. In addition, they should take firmly in hand breeding tasks that will realize results this year, and increase fall management measures to produce a bumper crop in the fishing industry for the year as a whole. They should also do a good job of preparing for next year's production and lay a foundation for large-scale future development.

9432

1980: 4007/594

BRIEFS

LAIWU COUNTY WHEAT SOWING--By 29 September, Laiwu County, Shandong Province, had fulfilled its task of sowing 500,000 mu of wheat this autumn. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 1 Oct 82]

WATER TO TIANJIN--In order to ensure the supply of water for use in industry and daily life in Tianjin, the State Council has decided that Shandong should continue to divert Huang He water to Tianjin this winter. A meeting was held on 26 and 27 September in Yucheng, Shandong, to make arrangements for the water diversion. The meeting urged efforts to overcome difficulties in order to ensure that, between 15 November 1982 and 15 January 1983, 450 million cubic meters of water will be diverted to Tianjin, and efforts to divert as much as 500 million cubic meters. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 30 Sep 82]

PROVINCIAL COTTON, GRAIN--Minan, 22 Sep (XINHUA)--Shandong's Dezhou Prefecture has successfully increased both cotton and grain production in just a few years. Compared with 1978, last year's cotton acreage expanded by 2.63 million mu, and the total output was up by 3 million dan. Though acreage planted to grain crops last year was 1.41 million mu less than in 1978, use of more fertilizer pushed up the output by some 390 million jin, or 13.1 percent above the 1978 level. This year's summer grain production was some 300 million jin more than last year, or an increase rate of some 20 percent. [OW081143 Beijing XINHUA Domestic Service in Chinese 1309 GMT 22 Sep 82]

NORTHWEST PREFECTURES' COTTON--Jinan, 2 Oct (XINHUA)--The Heze, Liaocheng, Dezhou and Huimin prefectures of northwestern Shandong Province produced a total of 1.89 million dan of cotton in 1978 and more than 10 million dan of cotton in 1981. A 20 percent increase in their total output of cotton is expected this year. [Beijing XINHUA Domestic Service in Chinese 0705 GMT 2 Oct 82]

CSO: 4007/10

PROVINCE HOLDS PLANNING CONFERENCE ON PRODUCTION

HE140736 Taiwan SHANXI RIBAO in Chinese 5 Oct 82 p 1

[Report by Qi Liangshan [4358 5328 0810], Zhang Guoyan [1728 0948 1750] and Lan Guangdong [5695 0342 2639]: "After Careful Calculation and Planning, the Provincial Conference Is Full of Confidence in Certain Victory in Attaining the General Target"]

[Text] offer ideas and make efforts for attaining the general target. This is the central issue of the provincial planning conference recently concluded in Taiyuan. The conference representatives conscientiously studied the documents of the 12th CPC Congress and reviewed and summarized the achievements, experiences and lessons in the building of socialism in the past 30 years or so. After careful calculation and planning, the conference had full confidence in certain victory in attaining the general target.

In the course of the conference, the representatives held ample discussions centered closely around the central issue of attaining the general target. The conference held that in order to attain this general target, all-out efforts must be made so that energy resources will forge ahead and coal production will be promoted. Shanxi Province is shouldering arduous responsibility. If we cannot build well this coal energy resource base in Shanxi, we will cause a drag in the progress of the whole country. Therefore, it is imperative to grasp well this strategic key point to make contributions in attaining the general target. Leading cadres of the various prefectures and cities have taken into account the practical circumstances of their own locality and have observed the favorable conditions and possibilities in attaining the general target. The representatives commonly viewed that only by conscientiously implementing the principles and policies of the party Central Committee and by fully arousing the initiative of the broad masses can the objective certainly be attained. With an attitude of seeking truth from facts, the representatives carried out discussions on the scheme of the sixth 5-year plan and the tentative plan of 10 years of Shanxi Province and drew up a preliminary chart on the development of industry and agriculture in Shanxi Province by the end of the century.

Qi Hailian, first secretary of the provincial CPC Committee, attended the closing of the conference and delivered a speech. He said: The target of modernization put forward by Comrade Hu Yaobang in his report is a strategic target for economic construction. We must strive for accomplishing this general target and all our work must be carried on around this target. Whether it is

the four political guarantees or the three turns for the better, they all serve the target. What shall we do to attain this general target? With concerted efforts we must promote the work in Shanxi Province, go all out, aim high and have confidence and high aspirations. Provided that everybody works well, we will be able to do a good job.

In his speech Comrade Huo Shilian particularly emphasized the importance of making investigations. He said: In attaining the general target, we must work out the plans and quotas for every stage; in working out plans, we have to go deep into the realities of life and carry out investigations and not sit at home looking at the old calendar; only by making investigations can we really know how things stand and overcome blindness; and only through careful investigations can we have a rather accurate and precise plan. Planning departments must make investigations and party committees at various levels, all departments, committees, bureaus and offices must also make investigations. They must be very familiar with the situation. We must be clearly aware of the strategic focal point and firmly grasp the fundamental links of agriculture, energy resources, communication, education and science. We must try to discover the focal point of our work by making investigations. Economic construction in mountainous areas is the focal point of rural work in Shanxi Province. There are vast mountainous areas in Shanxi Province, and if the economy of these areas is not promoted, it will hold back the progress of the whole province. It is necessary to encourage the confidence of cadres and commune members in mountainous areas to transform the aspect of their localities and at the same time provide them with necessary financial subsidies. So long as the initiative of the cadres and commune members of the mountainous areas is aroused, we are sure to construct the mountainous areas well. It is also necessary to grasp key projects in industry. We must build well the base of energy resources, heavy industry and chemical industry in Shanxi Province. Meanwhile, in a not very long time from now, we must also emphasize technical transformation in enterprises, raise the economic results and particularly be determined to change the situation of losses to gains in the enterprises.

Comrade Huo Shilian in conclusion said he expected that those comrades who engage in planning work must not only draw plans but also be responsible in checking the circumstances for carrying out the plans. They must immediately report to the higher levels the problems that appear in carrying out the plans so that they can be solved fairly and ensure that the state plan can be satisfactorily realized.

Responsible comrades of the provincial CPC Committee and government Huo Shilian, Luo Guibo, Wang Kewen, Wu Guangtang, Yan Wuhong, Jia Chongzhi, Wang Xi and Pan Guizheng attended the conference. Comrades Huo Shilian, Luo Guibo, Wang Kewen, Wu Guangtang and Jia Chongzhi listened to the reports and spoke at the conference. Thirty economic and technical experts from inside and outside the province who were invited to the conference made good suggestions on how to construct well the base of energy resources, heavy industry and chemical industry in Shanxi Province and how to accelerate the pace of economic construction.

IMPROVED YIELDS FROM CHRONICALLY LOW YIELD FIELDS REPORTED

Beijing RENMIN RIBAO In Chinese 28 Aug 82 p 2

[Article by Yuncheng Prefecture CPC Committee Investigation and Study Office, Shanxi Province: "A Look at the Potential For Increased Yields From Medium and Low Yield Fields in Terms of the Bumper Wheat Harvest"]

[Text] Editor's Note: This year Yuncheng Prefecture in Shanxi Province had a bumper wheat harvest, both total output and average yields per mu being higher than in the all-time high year of 1975. The main reason was that following institution of production responsibility systems, peasant production initiative and enthusiasm greatly increased. They improved medium and low yield fields, devoted attention to scientific farming, and applied traditional farming techniques and modern scientific farming techniques. This year was the first one in which Yuncheng Prefecture instituted production responsibility systems in its wheatfields, and improvements to medium and low yield fields made by the masses were only of a preliminary nature; nevertheless, remarkable results have been attained in increased yields. It may be seen that with the stabilization and perfection of production responsibility systems and continued improvement in medium and low yield fields, the potential for increased yields is very great.

This year Yuncheng Prefecture's 5.35 million mu of wheat yielded 1.945 billion jin, 15.8 percent more than last year, and surpassing the all-time high year of 1975 by 183 million jin. Yields averaged 363 jin per mu, a 15.2 percent increase over last year's 315 jin and a 12.7 percent increase over the all-time high average 322 jin per mu. Wheat yields per capita averaged 389 jin. Total output, yields per unit of area, and average yields per capita all set all-time high records.

One outstanding characteristic of Yuncheng Prefecture's wheat production this year was increases in yields over wide areas. Substantial increases in yields occurred in wetlands, drylands, close-in-fields, and distant fields alike. In medium and low yield fields where yields have tended to be

For a long period of time, in particular, the rate of increase in yields was greatest. A comparison of the extent of increase in yields of high, medium, and low yield "three fields" with the period before institution of responsibility systems shows the following in the main: In high yield fields, yields increased 10 percent; in medium yield fields yields increased 20 percent; and in low yield fields, yields doubled. Accompanying the rise in yields from medium and low yield fields was a remarkable change in the proportions of the "three fields". Before institution of responsibility systems, the proportions of the "three fields" were generally 1.5:3:5.5, i.e. 1.31 million mu of high yield fields, 2.01 million mu of medium yield fields, and 2.03 million mu of low yield fields. Linyi County, the largest wheat growing county in the prefecture, has 850,000 mu of wheatfields of which 500,000 mu had been low yield fields in former years. This year the amount fell to 300,000 mu. High yield fields rose from the former 100,000 mu to 150,000 mu. Medium yield fields increased from 200,000 mu to 400,000 mu. The main reason for the prefecture's ability to harvest a bumper wheat crop this year was the great increases in output of former medium and low yield fields, the great increase in the high yield and medium yield field area, and the great contraction of the low yield field area.

The main reason for the ability of former medium and low yield fields to increase yields greatly this year was that following institution of production responsibility systems, the masses made a series of improvements to medium and low yield fields to the maximum extent of their abilities, devoted attention to scientific farming, and applied traditional farming techniques and modern scientific farming techniques.

Mass enthusiasm for water conservancy ran very high. Ever since last year, commune members throughout the prefecture contributed their own funds to sink wells and build irrigation ditches, to tap potential and provide equipment, and to expand the irrigated wheatfield area by more than 600,000 mu. As a result of institution of different forms of management responsibility systems, the in-service rate and utilization rate for equipment at existing water conservancy projects was increased, and the irrigated area was expanded by 515,000 mu for effective improvement in production conditions on medium and low yield fields. In former years, by using deep wells it was possible to water only once the 3,200 mu of wheatfields in Shizhuang Production Brigade, Yuwang Commune, in Xia County. Last year after instituting a responsibility system whereby management of deep wells was contracted, the number of waterings of wheat increased to three and average yields per mu jumped from low to high, increasing by more than 20 percent over those of last year's bumper harvest, reaching 434 jin per mu. Under the former erroneous guiding mentality of "think big and act big," very little serious attention was given to slight leveling of the land and small improvements in soil preparation, which required little work for great benefits. Following institution of responsibility systems, the masses proceeded from realities to give serious attention to slight leveling of the land and small improvements in soil preparation to reap "instant results."

Having self-determination in production, the masses combined traditional farming techniques with modern scientific farming techniques, applying them

...the most of the chemical effectiveness of the crops, and from the increased yields from medium and low yield fields. The amount of manure increased in both quantity applied and area covered compared with the period prior to institution of responsibility systems. More distant fields and "sanitary fields" that had seen no manure for a long time in the past received fertilizing. Amount of fertilization with chemical fertilizer also strikingly increased. Both quantity of nitrogenous and phosphatic fertilizer applied and size of area covered in the prefecture last year greatly exceeded that of former years.

Restructuring of the farming system and use of scientific crop rotation was yet another major reason for the increased yields from medium and low yield fields. Many commune members adapted general methods to local situations to change the blind multiple sowing methods of the past. Before institution of responsibility systems, the area first planted to wheat was usually 3.10 million mu each year, and the area replanted to wheat somewhat more than 2 million mu. This year, however, the area first planted to wheat was increased to 3.37 million mu, and the area replanted to wheat reduced to somewhat more than 1.5 million mu. In addition, many places also devoted attention to cotton, soybean, chickpea, to the sequence of rotated crops, and to expansion of the area planted to pulses, melons, and alfalfa. This combined had an influence on the soil for very good results.

Selection of superior varieties in great demand and timely sowing also played an important role in increasing yields from medium and low yield fields. Last year the area to which superior varieties was spread reached 4.83 million mu, a 10,000 mu increase over the previous year and accounting for more than 90 percent of the total wheat field area. In addition sowing was done earlier and the sowing period shortened, so an overwhelming majority of medium and low yield fields had full stands of sturdy seedlings.

This year's bumper wheat harvest has been a beneficial illustration to people in that it has shown the need to give serious attention to improvement of medium and low yield fields. This year was not only the first year in which the prefecture comprehensively instituted wheat production responsibility systems, but also the one in which the masses made great gains from the low and medium yield fields they had. This year's bumper wheat harvest and remarkable results in increased yields. It may be seen that the low and medium yield field area is large and that the potential for increased yields is also large. All that is needed is further serious attention to improvement of its low and medium yield fields, and Yuncheng's bumper wheat harvest output can be even more abundant. Improvement to medium and low yield fields is entirely practicable following institution of responsibility systems. For a time some people supposed that with the institution of responsibility systems, farmland capital construction would be left to do. The fact of the bumper wheat yields in Yuncheng Prefecture in this year makes that institution of responsibility systems can not only go along with farmland capital construction and did not mean the abandonment of medium and low yield fields, but conversely created conditions and impetus for farmland capital construction and for improvement in water and soil fertility. In a situation of "eating out of a large common

1011." Commune member enthusiasm for work was stifled and limited. This plus blind guidance caused many useless projects that squandered the wealth of the working people. Now the masses have self-determination in production and their enthusiasm is high. All that is necessary is for us to give attention to investigation and study, to the adaptation of general methods to local conditions, to do a good job of planning, and to improving and strengthening organizational leadership, and even greater benefits can be gained in the improvement of medium and low yield fields.

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1013: 4007/592

PROBLEMS OF AGRICULTURAL PRODUCTION ANALYZED

Daivuan SHANXI NONGYE KEXUE [SHANXI AGRICULTURAL SCIENCES] in Chinese No 8, 1987, p. 16.

[Article in Shanxi Nongye Kexue, 1076-1293, 1973] of the Yanbei Meteorological Society: "Several Problems in Developing Agricultural Production in Yanbei"]

[Text] The favorable factors for agricultural production in Yanbei are as follows: Land and light resources are abundant. The monsoon climate is more defined, an abundance of water and heat occur simultaneously in summer; this favors the full development of the effects of water and heat. The climate is varied, favorable for developing diversification. The daily temperature difference is large, favorable for the formation of dry substances and the accumulation of sugar in crops. Heat resources are more suitable for early maturing and intermediate maturing crops. The chances of damage by high temperatures above 35° C are slim. The unfavorable factors are as follows: water and heat are not coordinated, their variation from year to year is large. Drought occurs frequently. Soil fertility is not high. Soil erosion and the loss of fertilizers are serious. Autumn frost and freezing occur early. The frostless period is short. Hail, floods and strong winds and other natural disasters also occur frequently. Since the 1970's, the per mu yield of food grains has always remained at about 200 jin. Although this was slightly higher than that of the 1960's and 1950's, it is affected by drought conditions every year and it is very unstable. When the amount of rain was suitable, and when there was sufficient heat and sunshine, the yield increased (such as in 1952, 1958, 1964, 1966, 1973, 1975, 1979). When drought lasted through spring and summer, the yield decreased (such as in 1961, 1963, 1971). When there was too much rain, especially when there was drought during the latter growth period (August-September), yields also decreased (such as in 1954, 1967, 1976, 1978). This showed that our prefecture's agricultural production has a very weak ability to resist natural disasters. Even after it cannot guarantee bumper harvests during drought and after 1979. Although light, heat, water and fertility and such natural resources are not too abundant, they are far from being fully utilized.

water is the life blood of crops. Without water, crops cannot survive. Therefore, in the past we were not wrong in the use of water. Rather, we were wrong in utilizing water "uniformly and arbitrarily." As a result, we focused our attention on the use of water but neglected other things, such as the taking of preventive measures to regulate water. Consequently, when

the "water methods" were stifled, we used the "dry methods." This was also inappropriate. If we say that "water methods" cannot fundamentally solve the problem of drought, then neither can the "dry methods." Without water, it would be empty talk to advocate using soil to retain water.

We believe attention should be paid to the following problems in our near-term policy to develop agricultural production in Yanbei.

1. We should rationally arrange the distribution of crops according to climatic characteristics.

The amount of heat in our prefecture is sufficient to plant spring wheat. But in May and June, during the peak development period of spring wheat, it needs the most amount of water, but this period is the dry season in our prefecture. The average amount of rainfall is only 79 mm. Higher yields can only be obtained by irrigation. Therefore, it is not suitable to enlarge the planting area. Light and heat resources in our prefecture are good. Especially in summer (July to August), water and heat are simultaneously available and they are very beneficial to the growth of autumn harvested crops. Therefore we should mainly develop autumn harvested crops. Generally speaking, we should mainly plant corn and spring wheat in the plains. In the plains and hilly regions where irrigational conditions are poor, we should mainly plant millet and broomcorn millet and sesame and potato. In high and cold regions, we should plant naked oats, sesame, potato, broomcorn millet and short term millet. Saline and alkaline land is suitable for planting beets, sunflower and aniseed.

2. We should suit measures to local circumstances, reform the planting system, perfect the production responsibility system, fully utilize natural resources.

(1) We should implement rotation of the fields for crops and grass, plant more rotation crops, increase the application of organic fertilizers, rationally apply inorganic fertilizers, bank soil fertility, combine use and maintaining of land, use water scientifically and conserve the use of water.

(2) We should implement interplanting and companion planting of tall and short stemmed crops, change one crop to two crops in areas with good water and fertility conditions, implement reasonably dense planting, fully utilize water, fertility, light, heat and such natural resources and improve yield.

(3) We should sow appropriately early and shorten the sowing period, which is determined by climatic factors in our prefecture and required by crop physiology. According to experiments, intermediate and late maturing potato planted in the last 10 days of April yielded 30 percent more than that planted in the last 10 days of May. Early maturing potato planted in the first 10 days of May yielded 40 percent more than that sowed in the last 10 days of May. Sesame sowed on 18 April yielded over 30 percent more than that sowed on 6 May. Therefore, we must sow appropriately early and shorten the sowing period (See table below). This is the key to guarantee full seedlings, resist drought and increase yield.

3. While planting trees, building forests and improving the environment, we must strengthen the building of a network of protective forests.

4. While paying attention to the principle of ecological balance, we should concentrate major efforts to improve the yield of dryland and low yielding fields. Our prefecture has 7.57 million mu of dryland and low yielding fields. Their fertility is seriously deficient. Poor planting management is the main reason for low yields. Banking soil fertility and strengthening management are the key to increase unit yield.

Suitable Sowing Period of Several Major Crops in Yanbei Prefecture

Crop	Suitable sowing period	Number of days from sowing to emergence of seedlings
Spring wheat	from mid. of March	20-25
Maize	last 10 days in April	13-15
Soybean	around 1 May	11-15
Millet	around 20 April	12
Barley	last 10 days in April	15

Editor
Yanbei Prefecture

TIANJIN

BRIEFS

AGRICULTURAL COLLEGE--Tianjin, 2 Oct (XINHUA)--With the approval of the State Council, the Tianjin Agricultural College was recently inaugurated. The 4-year college has four disciplines, namely: Agronomy, aquatic products, vegetables and orchards. Enrollment will begin in the latter half of 1983. [Beijing XINHUA Domestic Service in Chinese 0024 GMT 2 Oct 82]

WATER DIVERSION PROJECT--Some 70,000 voluntary laborers from all walks of life in Tianjin Municipality are now participating in the project diverting the Luan River water to Tianjin. The Tianjin Municipal CPC Committee and government recently held a meeting urging volunteers from all circles to take part in this project to benefit future generations. [Tianjin City Service in Mandarin 0030 GMT 4 Oct 82]

CSO: 4007/10

OVERALL INCREASE IN HOG PRODUCTION REPORTED

Liming YUNNAN RIBAO in Chinese 3 Aug 82 p 1

[Article: "All Around Increase in Live Hog Production in Province During First Half of Year. Out of Inventory Rate Increased 6.3 Percent Over Same Period Last Year; Procurement Increased 8.3 Percent; and Pork Output Increased 14.5 Percent"]

[Text] Following last year's sustained increase in hog production, during the first half of this year the province again scored all around increases. As at the end of June the number of hogs in inventory in the province was 6 percent greater than during the same period last year. Hogs removed from inventory numbered 2,555,000, a 6.3 percent increase; fattened hogs procured numbered 1,321,000, an 8.2 percent increase, and hog weight averaged 92.7 kilograms, 4.8 kilograms more than during the same period last year. Put in terms of pork production, this meant an output of 165,700 tons of pork for the province as a whole for the first half of the year, which was a 14.5 percent increase over the same period last year. Increase in the quantity of pork improved market supply, so the quantity of pork brought into the province from outside was 53.4 percent less than for the same period last year.

The party and government organizations at all levels in the province enthusiastically carried out the spirit of State and Council documents referring to the development of hog raising, and devoted attention to such food production such as pork as an important task for improving livelihood of the masses, and for developing a fine situation of stability and unity, with CCP committees at all levels regularly studying and providing support to problems existing in pork production.

At the same time, more than 1 million hogs in the province died of infectious diseases such as swine fever for tremendous losses. In order to effectively reduce the number of deaths and increase the number of hogs fattened, a meeting of the relevant departments concerned in the province convened a "Swine Epidemic Prevention Work Conference," and the provincial government allocated 3 million yuan to the purchase of veterinary medicine epidemic prevention equipment to support the localities in doing a good job of epidemic prevention work. On the basis of their local conditions, all zhous and counties devoted attention

... aspects of livestock epidemic disease prevention. Most of the counties in the prefectures and zhous of Chuxiong, Xishuangbanna, and Honghe allocated funds from local public coffers to solve the problem of subsidies for production brigade veterinary personnel, thereby bringing about a tremendous decline in hog deaths this year.

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BUMPER EARLY RICE HARVEST REPORTED

Punning YUNNAN China in Chinese 12 Jul 62 p 1

[Article: "Province Happily Harvests Bumper Early Rice Crop. Output Totals More Than 430 Million Jin, 12 Million Jin More Than Last Year's Bumper Crop"]

[Text: As a result of the arduous efforts of the broad masses of cadres and commune members in early rice growing areas, this year the province happily harvested a bumper early rice crop, output totaling more than 430 million jin, or more than 12 million jin more than the bumper harvest of 1961.

This year some of the principle early rice growing areas of the province increased the level of scientific farming to create conditions for increased early rice crop yields. In Lincang Prefecture, after the double crop early rice area was expanded by more than 5,700 mu over last year a change was made from the former sole attention to single techniques to the adoption of all-around measures, with all encompassing attention being given sensible fertilization, the growing of sturdy seedlings, transplanting at the right time, and improvement of fertilization and watering care. As a result, a fine early rice crop was harvested that was 10 percent larger than last year's. In the hot, flatland counties of Simao, Jiangcheng, Puer, Jinggu, and Shuangbai in Simao Prefecture, which are suited to the growing of early rice, the growing of hybrid rice was demonstrated over a more than 15,000 mu area. This gave impetus to improvement of all early rice growing techniques, and early rice yields amounted to 800 to 900 jin per mu, between 200 and 300 percent more than conventional rice varieties. Yields from conventional varieties of rice also rose for a balanced increase in rice crop yields.

In the course of early rice crop production this year, all areas experienced unfavorable conditions, including frosts, drought, and disease, insect, and rat pests. Faced with disadvantageous conditions, the broad masses of cadres and people took corresponding countermeasures to reduce losses caused by these conditions. During the early rice growing season in Yuanjiang County, outbreaks of armyworms and bacterial blight occurred. County officials immediately intensified disease and insect pest monitoring and reporting, and organized technical cadres to stay at selected grassroots units to gain first-hand experience and to give area guidance in prevention and control. This reduced losses from diseases and insect pests, and early

rice production for the county as a whole increased 4 percent over last year. In the early rice growing areas of Dongchuan, Zhaotong, Chuxiong, and Lijiang prefectures, during the sustained drought of last winter and this spring, the masses persevered in fighting drought to transplant seedlings, and fighting drought to protect the transplanted seedlings, and a good crop of early rice was also harvested in those places too.

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BRIEFS

FUNDS FOR DISASTER AREAS--Recently, the Yunnan Provincial CPC Committee and people's government decided to allot 3.77 million yuan of relief funds to 17 disaster-stricken prefectures and cities and to allot 1.75 million yuan worth of winter clothes to Zhaotong, Qujing, Lijiang and eight other prefectures and cities to help the people in these disaster areas make adequate arrangements for daily life. Since spring this year, natural disasters have frequently occurred in various localities in our province. Most areas in the 17 prefectures and cities have been more or less afflicted by drought or plagues of insects while some other areas have suffered from flood and hail disasters. As a result, the output of some early spring crops has dropped and some early-maturing crops are not growing well. The people's livelihood has thus been seriously affected. The provincial CPC Committee and people's government have shown great concern about this. After giving instructions to party and government organizations at various levels, requiring them to do their best in helping the masses with production, and allotting 4 million yuan of relief funds separately in April and June this year, they decided recently to allot more relief funds to 17 disaster areas. [Text] [HK050618 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 30 Sep 82]

CS: 4007/10

UNCULTIVATED LAND UTILIZED FOR ECONOMIC CROPS

Beijing RENMIN RIBAO in Chinese 10 Jun 82 p 2

[Article: "Zhejiang Province Utilizes Land To Develop Economic Crops"]

[Text] Zhejiang Province has utilized uncultivated land, such as mountainous land, tidal land, and stream banks, to vigorously develop economic crops. In 1981, this land amounted to 5.1 million mu, a 70 percent increase over the figure for 1976, with an output value increase of 75.5 percent. For the whole province, the proportion occupied by the diversified economy in the total output value of agriculture rose to 61 percent from the 52.2 percent in 1976.

From historical experience, the great number of cadres and masses realize that if economic crops are planted on land suitable for grain production, production will not be stable and there will be frequent fluctuations in it; only by "going up to the mountains and down to the sea" and, in a planned way, utilizing uncultivated land can there be steady development. The specific ways by which they utilized uncultivated land were:

1. Various methods were adopted to provide the necessary support. From 1977 to 1981, every year the province provided about 15 million yuan in subsidies and allocated a fixed amount of steel, wood, cement, and grain; the provincial party committee also organized the foreign trade, agricultural reclamation, and industrial departments and the communes and production teams to jointly run the production bases for economic crops, and put the appropriate funds into them. With the funds, the communes and production teams displayed unprecedented enthusiasm and opened up 1.3 million mu of tidal land and hilly land, on which they planted a large number of well-known fruits, such as tangerines, loquats, and green plums, and tallow trees.

2. They suited measures to local conditions in developing economic crops and tried hard to get the most out of the land. The natural conditions of mountainous land, tidal land, and stream banks are complex, and the growth requirements of the various economic crops are different. Therefore, before organizing economic crops to "go up to the mountains and down to the sea," Zhejiang Province surveyed the natural resources of various places and gained a clear understanding of the state of the soil, water conservancy, temperature, amount of rainfall, and organisms. Then, suiting measures to local conditions, it developed production. Oranges and tangerines fear freezes, so they were

planted in small plots in northern and central Zhejiang where weather conditions are good; citrus trees like alkaline soil, so they were moved along the ridges to the limestone tops of mountains and some hills.

After the 1958-59 winter guidance was strengthened. After some time, the Longtong area moved from plains to mountain land or tidal land. There were already some organized scientific and technical personnel to give technical guidance, cultivation, and management, so that the crops would grow successfully in their new environment. For example, after the oranges and tangerines were moved to the mountains it would be easy for them to suffer a premature drop of fruit. The technicians guided the various places to graft sweet orange onto the strong orange and tangerine plants, thereby increasing their drought resistance property; water was diverted and stored, and spray irrigation was practiced. Focusing on the problem of oranges and tangerines (which were often hit by the yellowing disease) [huanghua bing 1958 0513 4016] and the problem of frost damage, the various places on the one hand selected frost-resistant seedlings, and on the other hand dug deep channels to drain the water off the ridges to lower the water table. In this way, no matter whether the oranges and tangerines were planted in the mountains or by the sea, they could become stable and high-yield units. The Longtong Production Brigade in 1959 planted oranges on 200 mu of tidal land, which produced 1,200 jin of oranges. An average per mu output of over 6,000 jin.

Longtong, 1959

ZHEJIANG

1981

INCREASED GRAIN PRODUCTION--From 1979 to 1981, Zhejiang's Jinhua Prefecture increased its grain production by 3.23 billion jin and supplied the state with more than 2.2 billion jin of commercial grain. As a result of the rapid progress in diversified economic undertakings, the per capita income of the rural population increased to 235 yuan from 82 yuan in 1978. The annual increase in grain production during the 1979-1981 period was 1.077 billion jin, taking 1978 as the base year. This year, the spring crop and early rice production had another increase of 419 million jin and a good harvest is expected for the late-ripening crops. The prefecture has afforested 1.47 million mu of land in the past few years. [Hangzhou Zhejiang Provincial Service in Mandarin 1030 GMT 1981-05-21]

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1. The first characteristic is that politics is separated from economic work.

2. The second characteristic is that politics is separated from economic work.

3. The third characteristic is that politics is separated from economic work.

4. The fourth characteristic is that politics is separated from economic work.

The return of the commune system in Guanghan County, Xindu County and Dulonglai County in Sichuan Province has been a successful experience and there is the tendency for reform to spread to other parts of the province. At present, pilot projects in commune reform have also appeared in the municipalities, regions and autonomous prefectures of Sichuan Province. This is a gratifying phenomenon.

One of the characteristics of commune reform is that politics is separated from economic work. In 1958, when people's communes were organized throughout the country, there was a tendency to effect the transition to communism prematurely. The political and economic work were combined into one, the governments of the towns and counties were abolished and the local administrative organs at the grassroots level were dissolved. This was in effect a destruction of democracy at the grassroots level.

One of the main characteristics that is to be played in the National People's Congress is the chapter on "people's congresses and people's government at various levels." In this chapter it is provided that the town and county governments are regional people's governments below the county level. The county government provides a legal basis for reforming the commune system. The county government should practice the separation of politics and economic work.

5. The fifth characteristic is that politics is separated from economic work.

6. The sixth characteristic is that politics is separated from economic work. In order to practice the separation of politics and economic work at the grassroots level and to practice the principle of separation of politics and economic work in the rural areas, it is provided in the constitution that the principle of separation of politics and economic work should be established and that

... is maintained in collective economic organizations. This facilitates the improvement and strengthening of political power, closely ties the economic and political power together and facilitates the development of the collective economic organization." "Politics is separated from commune work. The authority of office through political power is given up. The communes, brigades, enterprises of the production brigades and the ownership of all the properties are not changed." "As to how to put this into practice, each place must proceed from its actual conditions and put it into practice in a guided, orderly and orderly manner. Do not take any hasty action and indiscriminately knock everything down."

The Central Committee does not want the communes throughout the country immediately to carry out their reforms all at the same time as it wishes to avoid mistakes and the unnecessary confusion which would thus result. The Central Committee wants it to be gradually developed. It is believed that in the near future, from now, pilot projects in commune reform will gradually be carried out in turn in different places.

How to Proceed to Restore the People's Governments in the Towns and Rural Areas

Guanghan, Xindu and Qionglai are ahead of other provinces in the country. It has had the experience of carrying out pilot projects in three of its counties which can be popularized throughout the province. In its construction of political power at the grassroots level, conditions in the entire province are ripe for developing election work in the communes and town towns. Recently, at the 16th meeting of the Sichuan Provincial People's Congress Standing Committee, a decision "concerning the election work of the communes and towns" was passed. It is decided that deputies be elected in the communes and towns throughout the province. The provincial people's congresses be convened and that management of the communes and people's governments of the towns be elected. This is a major step in the reform of collective economic organization while the Central Committee is the organ of political power at the grassroots level. Therefore, the systematic reform in which politics is separated from economics is now being finished. This should be called an important issue in the reform. The provincial people's government adopts safe and reliable measures to carry it out. It is provided that pilot projects for elections be first carried out in the communes and be widely popularized when experience has been gained.

Guanghan, Xindu and Qionglai

The separation of politics and economics in communes is advantageous to reforming the economic system and creating a new situation in the development of agricultural economy. The experiences of pilot projects in Guanghan, Xindu and Qionglai explain this point.

Since the third plenary session of the 11th CPC Central Committee, the influences of the "Left" have been wiped out in these three counties. The management system, organizational structure, method of management, method of distribution and circulation system which hinder production developments have been actively and steadily reformed. The most important practices have been 1) carry out division of

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TITLE: "Statistical Analysis of Blooming habits of Gaoliang"

JOURNAL: Dalian LIAONING NONGYE KEXUE [LIAONING AGRICULTURAL SCIENCES] in Chinese
No 4, 15 Aug 82 pp 1-6

ABSTRACT: In 1980, the authors observed 30,605 blooms of gaoliang of the experimental plot of Shenyang College of Agriculture, in Dongling, Shenyang. Plants of the 3 varieties of Sanchisan, 3197B, and 447 were seeded on 20 May; germination was on 24-28 May; and blooming began on 29 Jul and ended on 6 Aug. Observation started a few days before blooming to record the following: the duration between seeding and the beginning of blooming of each plant, the blooming time every day, the relationship between blooming and temperature and humidity, the number of days required for blooming of an entire spike, the peak blooming date and the number of blooms of each plant, the sequence of blooms on a spike, the opening phenomenon and time of gaoliang blooms. Results of the observation indicate that under the Shenyang environment, 71.07 ± 0.96 days are needed for gaoliang from seeding to the start of blooming; the difference among the varieties is not obvious. The blooming temperature is mostly $16-21.9^{\circ}\text{C}$; temperatures below 16°C or above 35°C are not suitable for blooming. Under the condition of the field environment, blooming mostly concentrates at a relative humidity of 95-100 percent. The number of blooms of each plant is obviously related to the variety of the gaoliang. These and other observed data are reported.

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TITLE: "Brief Report of Experiment of Upland Culture of Rice Using Film Ground Cover"

JOURNAL: Dalian LIAONING NONGYE KEXUE [LIAONING AGRICULTURAL SCIENCES] in Chinese
No 4, 15 Aug 82 pp 28-30

ABSTRACT: Rice is the fine grain liked by many people, but its acreage is limited by the availability of water. An experimental program was launched in 1981 to test the feasibility of developing upland rice culture in Liaoning Province utilizing a plastic ground cover. The experiment was carried out in key commune-brigades of 41 counties and regions of the province. The germination time, the transplanting time, the number of tillers per plant, the heading date, the height of the plant, the number of leaves, the number of spikes per mu, the number of grains per spike, the fruiting rate, the weight of 1000 grains, and the yield per mu are reported. The economic benefit of corn crops and that of rice crops of film-covered upland culture in the experimental localities are compared. Several technical measures essential for upland rice culture with plastic mulch are introduced, based upon the one year experience of the various test areas.

ABSTRACT: New sources of water are urgently needed to meet the requirement of the piked fields of the coastal areas, the fish ponds, and the people's daily living. In 1975-76, the author and colleagues experimented with irrigating rice crops with mineralized well water of the coastal area of Jin County and obtained yields of about 600-700 jin/ha. Changes of the saline contents of the coastal chloride soil under the condition of mineralized groundwater irrigation are studied and reported.

1. TITLE: "Techniques of Flow Gaging Structures on Small Stream."

2. FROM: Nanjing Research Institute of Hydrology, Ministry of Water Conservancy and Electrical Power

3. SUBJECT: "Techniques of Flow Gaging Structures on Small Stream."

4. REF: Beijing CHINESE [HYDROLOGY] in Chinese No 4, 25 Aug 62 pp 2-9

5. SUMMARY: Due to the special conditions of small streams, such as a high rise and fall differential, instability of flow, shallow depth of water, a high flood peak narrow modulus, and a long duration of small flow volume, etc. the error is often very great when a regular current meter is used for testing. At present, many types of domestic and foreign flow gaging structures have become available to meet many conditions of water power, stream bed, and range of flow variation, but in order to select the instrument for a designated objective, the boundary conditions, suitable hydrological and structural designing, correct operation and maintenance, etc. must all be properly considered. It is even more difficult to select a flow measuring device for a stream containing a large quantity of suspended and or bottom sand. This paper includes a detailed procedure or program for selecting a flow gaging structure on a small stream according to the conditions. Equations used to calculate all the necessary considerations every step in the selection procedure are explained.

6. TITLE: "Research on the optimum depth of shallow groundwater in the Plain regions"

7. FROM: Beijing CHINESE [HYDROLOGY] in Chinese No 4, 25 Aug 62 pp 10-18

8. SUBJECT: "Research on the optimum depth of shallow groundwater in the Plain regions"

9. REF: Beijing CHINESE [HYDROLOGY] in Chinese No 4, 25 Aug 62 pp 10-18

10. SUMMARY: The physical concept of the optimum depth of groundwater is introduced in the paper by explaining the methods of calculating the groundwater recharge from rainfall and/or other long term source of supplement. It is necessary to obtain the quantity of recharge from all available sources before the optimum depth can be correctly assessed and the obviously random aspect of rainfall from year to year remains to be studied further. Aside from the various factors influenced by the variable recharge sources, this paper introduces the graphic correlation method to the method of calculating the optimum depth of groundwater. The concrete conditions of north prefecture of Suzhou, Shaoxing prefecture are used to illustrate the principle of applying these two methods.

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Title: "Main Hydrological Characteristics of the Tidal Area of Qiantangjiang"

Journal: Beijing SHUIWEN [HYDROLOGY] in Chinese No 4, 25 Aug 82 pp 55-57

ABSTRACT: From the foothill of Jianshan Mountain Range in Anhui Province, Qiantangjiang flows across the northern part of Zhejiang, with clear water and little sand. The drainage basin measures 50,100 km² and 50 percent of its natural runoff is concentrated in Apr. May, and Jun. The maximum peak flow is 29,000 m³/sec (1955) and the minimum 15.4 m³/sec (1974). The geographical and hydrological characteristics of the estuary of Qiantangjiang, the tidal waves of the estuary and the Hangzhou Bay, and the special condition of tidal surges are discussed. The major portion of the paper deals with the genesis of Qiantangjiang's surges, which are in reality successive yet broken tidal waves, and their changing phenomena as described in historical records. Figures depicting the longitudinal section of Qiantangjiang estuary, the propagation of tidal waves in the estuary and the bay, and conditions of the estuary from 760 A.D. to the present time are included.

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6. $\frac{1}{2} \pi$ 7. $\frac{1}{2} \pi$ 8. $\frac{1}{2} \pi$ 9. $\frac{1}{2} \pi$

890. Change: 1.8 x 10³ J; 1.8 kJ; 1.8 x 10³ Cal; 1.8 kCal

5334 *Simulium* sp. (C. Gieseler, *Revue de la faune* 1964: 107)

5. FIELD NO. 2942 LOCALITY G. P. HILL, 1111 (HYPHENATED) AND ENGINEERING COLLEGE
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... the calculation of the quantity of infiltration of at-
... the boundary included in
... the infiltration coefficient and the effective
... and the effective in-
... based upon the author's experience of many
... this paper introduces a method
... using Simpson's numerical integration and the
... period. Examples are given to
... of the λ_e produced by this method.

* Zhongguo Shixue [1956] 1:24-25

Author: Shanxi Provincial Bureau of Geology

Title: "Infiltration Characteristics of Rainwater and Moisture Storage Regime in the Aeration Zone of New Loess"

Source: Beijing SHUIWENDIZHI GONGCHENGDI [HYDROGEOLOGY AND ENGINEERING GEOLOGY] in Chinese No. 5, 15 Sep 62 pp 13-17

Abstract: Within the jurisdiction of Shanxi, exposed Upper Pleistocene new loess covers about 90,000 km² and is very important in the study of rainwater distribution, infiltration mechanism, the water storage of the aeration zone, as well as in forecasting the flood peak and evaluating the water resource of the region. Using the middle section of Lyuliang Mountains of this region as an example, the geological and hydrogeological characteristics, the properties of the new loess, the rainwater infiltration condition of the new loess, the dynamic condition of water storage in the aeration zone of the new loess, etc. are introduced. The amount of rainfall of certain days in Jul and Aug in 1958, 1959, and 1960 is compared with measured infiltration data and there is also a table giving the average moisture content of the aeration zone of the new loess in each of the months of Mar through Nov in layers of various depths of the zone.

* Zhongguo Shixue [1962] 1:24-25

Author: Shanxi Provincial Bureau of Geology

Title: "Some Problems of Environment Engineering Geology"

Source: Beijing SHUIWENDIZHI GONGCHENGDI [HYDROGEOLOGY AND ENGINEERING GEOLOGY] in Chinese No. 5, 15 Sep 62 pp 17-22

Abstract: Environment engineering geology includes the natural environment, conforming with the principle of the region, as well as the secondary environment which is influenced by economic-engineering activities of mankind. Regional engineering geology work has not yet been sufficiently developed in China; and attention will have to be given to the field in recent years only after the appearance of the following problems: (1) Earthquakes in reservoirs; (2) Deformation of ground surface; (3) Earthquakes induced by mining; (4) Landslides induced by instability and deformation of secondary slopes of mines, railways, etc.; (5) Dried-up springs caused by underground excavations, occurring mostly in karst regions; (6) Erosion caused by logging to convert forests to cropland. Sample instances are given to illustrate each of these problems.

Source: Adapted from the 1995 China Survey on Enterprise Management.

From the above, we conclude that

1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000

DATE: 11/17/2001

Journal of Interpersonal Violence 26(8) 1970-1986
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that representation is not an alternative method to

the boundary conditions and scale of river water dis-

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ORG: Nanjing Research Institute of Pedology, Chinese Academy of Sciences

TITLE: "Prospect of Phosphorus Fertilizer Development in China in View of Crop, Soil, and Phosphorus Resources Conditions"

SOURCE: Nanjing TIRANG [SOILS] in Chinese No 4, Aug 82 pp 121-127

ABSTRACT: In 1960, the total chemical fertilizer production of China reached 10.0 million tons, in terms of pure nutrients of $N + P_2O_5 + K_2O$, next only to that of the USA and the USSR. Just before the liberation, it was not even 600 tons, of nitrogen fertilizer only. In spite of the rapid development, the production, especially that of phosphorus and potassium fertilizers, remains less than sufficient to meet the needs of agricultural production. The disproportional development of the 3 nutrients is also a problem. Compared 1960 with 1960, the increase of N is nearly 5-fold and that of P_2O_5 is only 12-fold. The harmonious needs of crop plants for all 3 nutrients and the relationship between the level of phosphorus supply of the soil and the high yield of crops are explained. The paper also includes extensive discussions of the solubility of phosphorus fertilizer, its quality, its economic benefit, and the reasonable utilization of China's rich phosphorus resources to reach a conclusion that within the next 2 to 3 5-year plans the scale and the mining technique will obviously improve so that the quantity and the quality of phosphorus fertilizer may be greatly raised.

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ORG: Nanjing Research Institute of Pedology, Chinese Academy of Sciences

TITLE: "Geochemical Characteristics of Boron in Some Major Soils of China"

SOURCE: Nanjing TIRANG [SOILS] in Chinese No 4, Aug 82 pp 127-133

ABSTRACT: Boron contents of Chinese soils vary in a very great range, from a high average content of 14ppm in Xizang Plateau to the very low of 0.10ppm of the lateritic soil of South China. The boron content of soil is reflected in the boron content of plants and plant growth. In Xizang, some *Polygonum sibiricum* may contain 40ppm of boron; wheat grown in white waterlogged soil of the Sanjiang Plain of the Northeast will flower but will not fruit unless boron fertilizer is applied. Generally speaking, boron accumulates in arid areas and is deficient in humid areas. The transfer and enrichment of boron in the soil profile and factors influencing the effectiveness of soil boron are discussed. The paper also includes tables showing effects of liming on soil pH and the boron content of barley in Jiangxi, Zhejiang, and Guangdong, contents of effective boron in some major soils of sampled areas of China, and the boron content of soils of Central and South China of different parent materials.

Since a deficiency of fertilizer is the main supply, it is important to raise the nitrogen supply and nitrogen application. When there is an abundance of it, the nitrogen supply rate, other than the nitrogen must be considered. The nitrogen supply rate is applied in every instance. Generalized nitrogen supply rate is not a good idea. The crop rotation system, the nitrogen supply rate, and the nitrogen supply of the organic fertilizer are the main factors. This paper summarizes some related domestic nitrogen supply rate for the purpose of providing some indices to help nitrogen supply rate of organic fertilizer for rice and wheat crops. Details of the nitrogen supply rate of rice and wheat, the nitrogen supply of soil, the nitrogen supply rate, the nitrogen and organic nitrogen utilization rate of a crop are not included.

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TITLE: "Effects of Potassium Nutrition of Rice Plants on Soil Oxidation-reduction Conditions"

SOURCE: Nanjing TURANG [SOILS] in Chinese No 4, Aug 82 pp 140-142

ABSTRACT: The effects of soil potassium level on rice have been frequently studied, yet there have been very few studies on the effects of rice on the soil itself under different levels of potassium supply conditions. Water culture experiments have proved that a medium of complete nutrients may prevent excessive multiplication of aerobic microbes and when the medium is potassium deficient, its oxidation-reduction potential drops obviously. The authors carried out pot and field experiments in 1978 and 1980 to determine the extent of effect on the condition of soil oxidation-reduction state in soils of different potassium supply capabilities, after rice is planted and potassium fertilizer applied. Results of the study show that potassium fertilizer can lower the active reduction substance of the soil, raise the soil oxidation-reduction potential, as well as increase the Eh of the rice root system and reduce the iron content of the rice plant. The reason of the effect of the potassium fertilizer on the soil oxidation-reduction condition involves many factors and is perhaps related mainly to the reinforced oxidation capacity of the rice root system.

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